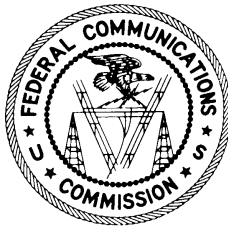


Internet Access Services: Status as of June 30, 2009

Industry Analysis and Technology Division
Wireline Competition Bureau
September 2010



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Internet Access Services: Status as of June 30, 2009

Introduction. This report summarizes information about Internet access connections over 200 kilobits per second (kbps) in at least one direction in service in the United States on June 30, 2009, as collected by FCC Form 477. Form 477 gathers standardized information about subscribership to Internet access services from telephone companies, cable system operators, terrestrial wireless service providers, satellite service providers, and any other facilities-based providers of advanced telecommunications capability.¹

This report reflects the Commission's continued efforts to improve the way it collects, uses, and disseminates data. This report traditionally has used the terms "high-speed" or "broadband" to describe all reported connections and, additionally, used the term "advanced services" to describe the subset of connections with advertised speeds above 200 kbps both to and from the end user (but not necessarily the same speed in each direction). As reflected in the National Broadband Plan and the Commission's Sixth Broadband Deployment Report, expectations regarding the appropriate performance characteristics of such connections are evolving.² In recognition, this report does not use those terms to describe the performance characteristics of connections used for Internet access service. This also is the second of the Form 477 semiannual data collections to include details about subscribership differences among census tracts and counties, as well as subscribership differences among the states.³

¹ Form 477 collects, and this report summarizes, information about Internet access connections *in service* to end-user locations that are advertised to deliver information to and/or from the end user – that is, in at least one direction – at transfer rates ("speeds") above 200 kbps. Information is collected about connections in several sub-groupings ("speed tiers") defined by ranges of upstream speeds and downstream speeds. Connections are further categorized by the technology employed by the part of the connection that terminates at the end-user location. See Technical Notes, at the end of this report, for information about the technology categories.

In the Form 477 data collection, "end users" are residential, business, institutional, or government entities who use services for their own purposes and who do not resell such services to other entities. The "facilities-based" provider of a connection is the entity that owns the portion of the physical facility that terminates at the end-user location, obtains an unbundled network element (UNE), special access line, or other leased facility that terminates at the end-user location and provisions/equips it as a connection that transfers information at rates over 200 kbps in at least one direction, or provisions/equips a wireless channel that transfers information at rates over 200 kbps in at least one direction to the end-user location over licensed spectrum or over spectrum that the provider uses on an unlicensed basis. The facilities-based providers report information about connections they provide directly to their own end-user customers and also connections that they provide to Internet Service Providers (ISPs) for resale to end users, and ISPs who are not themselves facilities-based providers do not report. These requirements avoid double-counting of end user connections. When the service retailer is such a reseller ISP, connections must be reported as residential or business connections based on the status of the end user of the ISP's retail Internet access service.

² See Federal Communications Commission, Omnibus Broadband Initiative, *Connecting America: The National Broadband Plan*, GN Docket No. 09-51 (2010) (NBP), available at <http://www.broadband.gov/>.

³ Congress directed the Commission and the states, in section 706 of the Telecommunications Act of 1996, to encourage deployment of advanced telecommunications capability in the United States on a reasonable and timely basis. See 47 U.S.C. § 1302(b). Section 706 of the Telecommunications Act of 1996, Pub. L. No. 104-104, title VII, Sec. 706, 110 Stat. 56, 153 (1996) (1996 Act), as amended in relevant part by the Broadband Data Improvement Act, Pub. L. No. 110-385, 122 Stat. 4096 (2008) (BDIA), is now codified in Title 47, Chapter 12 of the United States Code. See 47 U.S.C. § 1301 *et. seq.* To assist in its evaluation of such deployment, in 2000 the Commission instituted the Form 477 data collection program. For an overview of the history of the program and the major modifications adopted in 2008 – including the requirement to report fixed-location Internet access connections at the (continued....)

A note on trends analysis. Readers interested in historical trends in the Form 477 data should note key changes to the reporting requirements that were effective in 2005 and in 2008.

First, the historical series presented in this report begin with data as of June 30, 2005. In earlier data from this collection, providers with fewer than 250 connections over 200 kbps in at least one direction in service in a particular state were not required to report data for that state.⁴ Readers may refer to previous releases of this report for the more extensive data, from December 31, 1999, onward.⁵

Second, changed reporting instructions starting in December 2008 caused a one-time decrease in the reported number of mobile wireless Internet access service connections, from about 60 million in June 2008 to about 25 million in December 2008.⁶ Therefore, there was also a one-time decrease, between June 2008 and December 2008, in the reported number of total Internet access connections for all technologies combined.

Report overview. Following a presentation of report highlights, the remainder of the report consists of tables and charts in the following sequence.

- **National data.** We update historical tables and present tables and charts that summarize detailed data as of June 30, 2009. The detailed data include connections reported in 72 combinations of advertised upstream and downstream transmission speeds (nine upstream speed ranges and eight downstream speed ranges), which may differ from the actual speeds experienced by subscribers. The national data also include differences among the 3,232 counties and 66,287 census tracts in the estimated share of households with fixed-location Internet access connections over 200 kbps in at least one direction.⁷

(Continued from previous page) —————

census tract level of detail – see *High-Speed Services for Internet Access: Status as of December 31, 2008* (February 2010) (*December 2008 High-Speed Report*) at 2-3, available at <http://www.fcc.gov/wcb/iatd/comp.html>.

⁴ Eliminating the reporting threshold resulted in the number of filers more than doubling. However, as of June 30, 2005, filers with fewer than 250 connections in a state (including some entities that previously made voluntary submissions) represented about 0.2% of total reported connections.

⁵ Previous releases of this report are available at <http://www.fcc.gov/wcb/iatd/comp.html>. Individual reports may include revisions of previously published statistics.

⁶ For reporting periods through June 30, 2008, Form 477 had instructed mobile wireless providers to report the number of subscribers whose mobile device (such as a wireless modem laptop card, smartphone, or handset) was capable of sending or receiving data at speeds above 200 kbps. Starting with the December 31, 2008 data, Form 477 requires mobile wireless providers to report the number of subscribers that have such a device and also a subscription that includes a data plan for transferring, on a monthly basis, either a specified or an unlimited amount of data to and from Internet sites of the subscriber's choice, and *excluding* subscribers whose choice of content is restricted to only customized-for-mobile content (for example, text and multimedia messaging, or the capacity to download ringtones and games). In this report, we refer to such subscribers as having service subscriptions for full Internet access. See also Technical Notes for Tables 1-4 at the end of this report.

⁷ According to the Census Bureau, there were 66,438 census tracts in the United States, Puerto Rico, and the Island Areas (e.g., the U.S. Virgin Islands) for the 2000 decennial census, including some coastal and Great Lakes water and territorial sea areas for which the Census Bureau assigned a default census tract code of 000000. The default-code tracts are not included in the statistics in this report.

Concerning transmission speeds, we note for the first time the connections reported in the Form 477 speed tiers that most closely approximate the initial broadband *availability* target that was recommended in the National Broadband Plan.⁸ We also note the reported connections that meet the “BTOP/BIP definition” of broadband service (advertised speeds of at least 768 kbps downstream and 200 kbps upstream to end users) that the Rural Utilities Service, Department of Agriculture, and the National Telecommunications and Information Administration, Department of Commerce, adopted to implement the stimulus funding for broadband deployment provisions of the Recovery Act.⁹

- State data. We update historical tables and present a table that summarizes connections reported in 72 combinations of upstream and downstream transmission speeds as of June 30, 2009.
- County and census tract data. We update tables that summarize the estimated shares of households with reportable fixed-location Internet access service in different geographies. By contrast to the national summary information, these tables present detailed results for the counties and census tracts in individual states as of June 30, 2009.
- Demographic factors. We update charts that illustrate relationships to demographic factors, for example, income and educational attainment.

Readers should note that, consistent with our past practices for this report, publicly available detailed information that supplements the report will be made available electronically on the Wireline Competition Bureau’s website.¹⁰

Report highlights

Total subscribership by technology (Table 1)

- Internet access connections over 200 kbps in at least one direction to homes and businesses over fixed-location technologies increased by 3% during the first half of 2009, to 78 million.

⁸ The NBP recommends, as an initial broadband availability target for universal access, actual download speeds of at least 4 megabits per second (mbps) and actual upload speeds of at least 1 mbps, and recommends that the FCC should review and reset this target every four years. *See* NBP, *supra* note 2, at 135. We use the Form 477-defined speed tiers beginning at 3 mbps for downloads and 768 kbps for uploads as the data that most closely approximate the NBP availability target. *See Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, Amended by the Broadband Data Improvement Act*, GN Docket Nos. 09-137, 09-51 Report, FCC 10-129, para. 20 (rel. July 20, 2010).

⁹ *See* Department of Agriculture, Rural Utilities Service, Broadband Initiatives Program, RIN: 00572-ZA01, Department of Commerce, National Telecommunications and Information Administration, Broadband Technology Opportunities Program, RIN: 0660-ZA28, Notice of Funds Availability, 74 Red. Reg. 33104 (July 9, 2009).

¹⁰ *See*, for example, items posted under the subheading “Miscellaneous data from FCC Form 477” at <http://www.fcc.gov/wcb/iatd/comp.html>.

- At mid-year 2009, 35 million mobile wireless service subscribers had mobile devices (such as laptops and smartphones) with data plans for full Internet access, as compared to 25 million six months earlier.
- Reported connections for the most widely adopted fixed-location technologies, cable modem and aDSL, increased by 3% and 1%, respectively, during the first half of 2009, to 41 million cable modem connections and 31 million aDSL connections. A 23% increase in total fiber-to-the-premises (“FTTP”) connections, to 4 million, was the largest rate of change among the fixed-location technologies. Reportable satellite Internet connections increased by 6%, to 1 million.

Residential subscribership by technology (Table 3)

- There were 94 million reportable residential connections at mid-year 2009, of which 71 million were fixed-technology connections and 23 million were mobile wireless subscribers with data plans for full Internet access.
- Of the 94 million reportable residential connections at year-end 2008, cable modem represented 42%, aDSL represented 29%, mobile wireless subscribers with data plans for full Internet access represented 24%, FTTP represented 4%, and all other technologies represented 1%.
- Residential FTTP connections increased by 23% during the first half of 2009. Together, residential aDSL and FTTP connections increased by 4%, to 30 million.

Connection speeds (Tables 6, 8, and 9)

- Of the 113 million total (combined residential and business) reportable connections at mid-year 2009, about 34 million connections (or 30% of the total) were in the Form 477-defined speed tiers that, in combination, most closely approximate the initial broadband availability target recommended in the National Broadband Plan – that is, the connection was reported in one of the 35 (out of a total of 72) Form 477-defined speed tiers for which the minimum *advertised* speed for downloads was either 3 mbps or one of the higher Form 477-defined thresholds, and for which the minimum *advertised* speed for uploads was either 768 kbps or one of the higher Form 477-defined thresholds.
- Of the 113 million total (combined residential and business) reportable connections, 87 million connections (or 76% of the total) met the BTOP/BIP definition of broadband service (768 kbps or higher advertised downstream speeds and upstream speeds above 200 kbps). Among the 78 million *fixed-location connections* included in the total reportable connections, 91% met the BTOP/BIP definition of broadband service. Among the 35 million *mobile wireless subscribers whose subscriptions included a data plan for full Internet access*, the share was 45%.
- Of the 113 million total (combined residential and business) reportable connections in June 2009, 96 million (or 85% of the total) were faster than 200 kbps in both upstream and downstream directions.

Census tract and county shares of households with reportable connections (Charts 16-17, and the two maps following Table 12)

- We estimate the share of households with fixed-location Internet access connections over 200 kbps in at least one direction in individual census tracts and counties as of June 30, 2009. As was the case at year-end 2008, our estimates indicate that there are substantial areas of relatively low and relatively high household adoption around the national average.
- Particularly for census tracts, we continue to find estimates above 100% for the share of households with reportable fixed-location Internet access connections. Therefore, for reasons of accuracy, we continue to present many of our estimates at the county level.¹¹

Maps of providers by census tract

- Maps depict the number of providers of reportable connections by census tract. These maps are similar to previously published maps of providers by ZIP Code, but differ in important respects. In particular, instead of a single map combining providers of connections over all technologies and to both residential and business end users, now maps depict: (1) providers of total (combined residential and business) fixed-location connections, (2) providers of *residential* fixed-location connections, (3) providers of *residential* fixed-location connections that approximate the National Broadband Plan target, and (4) providers making mobile wireless service *available*.¹²

Household adoption by speed tier (Tables 21-23)

- As a national average, there were 61 reportable residential fixed-location connections per 100 households in June 2009. The ratio was 56 connections per 100 households for connections whose speeds met the BTOP/BIP definition. It was 27 connections per 100 households for connections whose speeds most closely approximated the initial broadband availability target recommended in the National Broadband Plan.

Household adoption rates and subscribership demographics (Charts 18-26)

- The report includes updated charts illustrating the relationship between household subscribership, or *adoption*, rates and demographic factors, such as median household income, household density, and educational attainment.
- The data as of mid-year 2009 continue to indicate that some demographic variables matter in explaining geographic variations in the adoption of Internet access service.

* * * *

We invite users of this information to suggest improvements in the data analysis by using the attached customer response form or e-mailing comments to IATDreports@fcc.gov for subject: June 2009 Internet services data, and to participate in proceedings the Commission undertakes to improve the data collection.

¹¹ See Technical Notes for Charts 16-17, Tables 11-12 and 21-22 at the end of the report for a discussion of ratios above 100%.

¹² As discussed in the Technical Notes, a mobile wireless provider should only report service availability in census tracts where the provider operates a network capable of sending or receiving data at speeds above 200 kbps.

Table 1
Connections over 200 kbps in at Least One Direction 2005-2009
(In thousands)

<i>Technology</i>	<i>2005</i>		<i>2006</i>		<i>2007</i>		<i>2008</i>		<i>2009</i>
	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>
Total	42,518	50,930	64,992	82,525	100,986	121,222	132,814	100,702	113,349
Total Fixed	42,138	47,803	53,975	60,238	65,681	70,206	73,123	75,662	77,950
aDSL	16,316	19,515	22,584	25,413	27,793	29,449	29,964	30,198	30,617
sDSL	412	369	337	345	320	293	275	241	217
Other Wireline	487	373	472	545	622	605	665	705	686
Cable Modem	24,017	26,558	29,173	31,982	34,404	36,507	38,190	40,207	41,407
FTTP ¹	316	298	547	894	1,281	1,849	2,346	2,884	3,543
Satellite	377	427	495	572	669	791	869	938	990
Fixed Wireless	209	257	361	483	587	707	808	484	485
Power Line and Other	5	5	5	5	5	5	5	5	5
Mobile Wireless ²	380	3,128	11,017	22,288	35,305	51,016	59,691	25,040	35,399

¹ Fiber to the premises. See Technical Notes at the end of the report for a description of Form 477 technology categories and other reporting requirements.

² Reporting instructions for mobile wireless changed between the June 2008 and December 2008 data. See Technical Notes at the end of the report.

Note: Some December 2008 data have been revised. Figures may not sum to totals due to rounding.

Source: FCC Form 477, Part I.

Chart 1
Fixed Connections 2005-2009

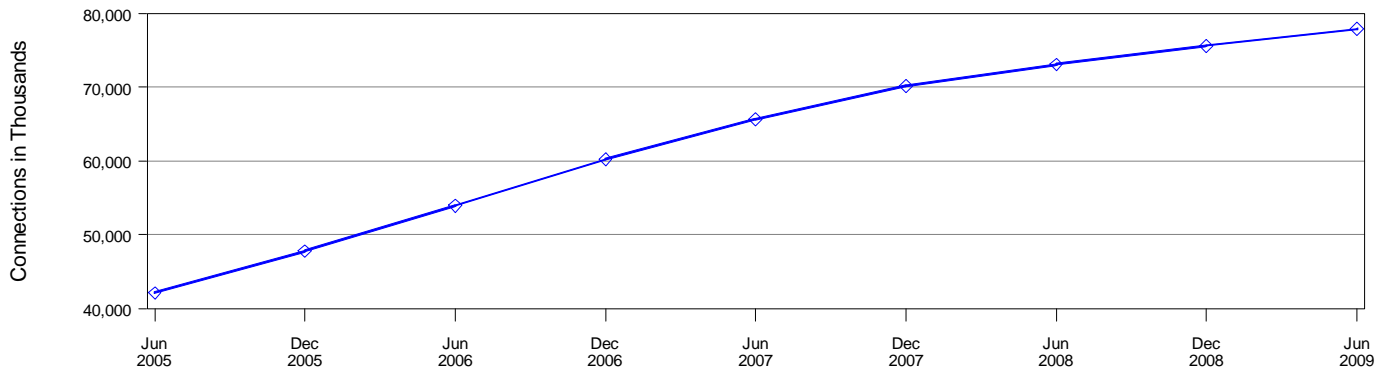


Chart 2
Connections by Technology as of June 30, 2009

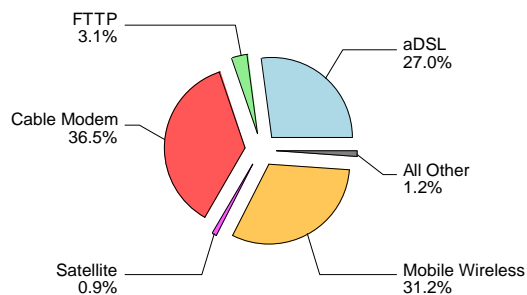


Table 2
Connections over 200 kbps in Both Directions 2005-2009
(In thousands)

<i>Technology</i>	<i>2005</i>		<i>2006</i>		<i>2007</i>		<i>2008</i>		<i>2009</i>
	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>
Total	37,333	43,592	50,838	59,505	69,619	80,254	88,414	84,576	95,902
Total Fixed	37,311	43,510	48,923	55,015	60,429	64,907	68,189	70,107	73,183
aDSL	13,176	15,921	18,310	21,144	23,657	25,244	26,132	26,569	27,590
sDSL	387	369	337	345	319	293	275	241	217
Other Wireline	482	368	471	544	622	605	665	705	686
Cable Modem	22,745	26,294	28,893	31,594	33,936	36,165	37,849	39,201	40,599
FTTP ¹	314	297	546	893	1,279	1,845	2,344	2,879	3,538
Satellite	11	36	27	36	57	74	155	110	130
Fixed Wireless	191	220	333	455	554	675	763	399	419
Power Line and Other	4	5	5	5	5	5	5	5	5
Mobile Wireless ²	21	82	1,914	4,491	9,190	15,347	20,226	14,469	22,719

¹ Fiber to the premises. See Technical Notes at the end of the report for a description of Form 477 technology categories and other reporting requirements.

² Reporting instructions for mobile wireless changed between the June 2008 and December 2008 data. See Technical Notes at the end of the report.

Note: Some December 2008 data have been revised. Figures may not sum to totals due to rounding.

Source: FCC Form 477, Part I.

Chart 3
Fixed Connections over 200 kbps in Both Directions 2005-2009

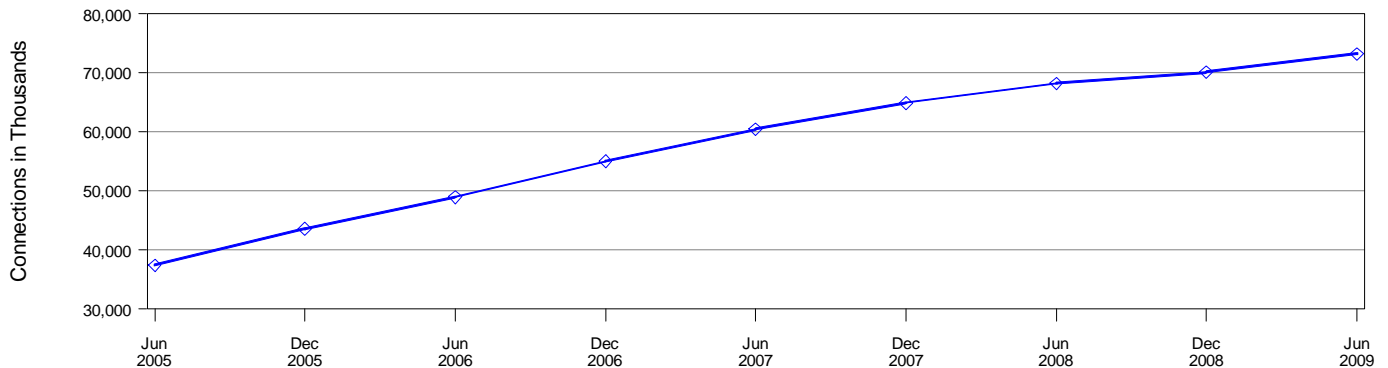


Chart 4
Connections over 200 kbps in Both Directions
by Technology as of June 30, 2009

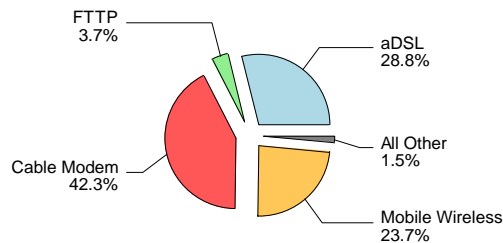


Table 3
Residential Connections over 200 kbps in at Least One Direction 2005-2009
(In thousands)

Technology	2005		2006		2007		2008		2009
	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun
Total	38,696	43,965	50,941	58,344	66,173	73,984	79,090	84,745	93,920
Total Fixed	38,694	43,956	49,784	55,652	60,628	64,875	67,554	68,996	71,391
aDSL	14,443	17,371	20,152	22,768	24,962	26,475	26,950	26,488	27,028
sDSL	154	122	103	105	105	82	81	74	71
Other Wireline	6	7	9	13	12	17	32	42	44
Cable Modem	23,578	25,714	28,388	31,118	33,336	35,341	36,901	38,631	39,816
FTTP ¹	83	213	444	764	1,153	1,683	2,139	2,717	3,344
Satellite	265	320	382	456	530	626	705	630	668
Fixed Wireless	161	203	301	424	523	644	741	409	416
Power Line and Other	4	5	5	5	5	5	5	5	5
Mobile Wireless ²	3	9	1,157	2,692	5,545	9,109	11,536	15,749	22,529

¹ Fiber to the premises. See Technical Notes at the end of the report for a description of Form 477 technology categories and other reporting requirements.

² Reporting instructions for mobile wireless changed between the June 2008 and December 2008 data. See Technical Notes at the end of the report.

Note: Some December 2008 data have been revised. Figures may not sum to totals due to rounding.

Source: FCC Form 477, Parts I and VI.

Chart 5
Residential Fixed Connections 2005-2009

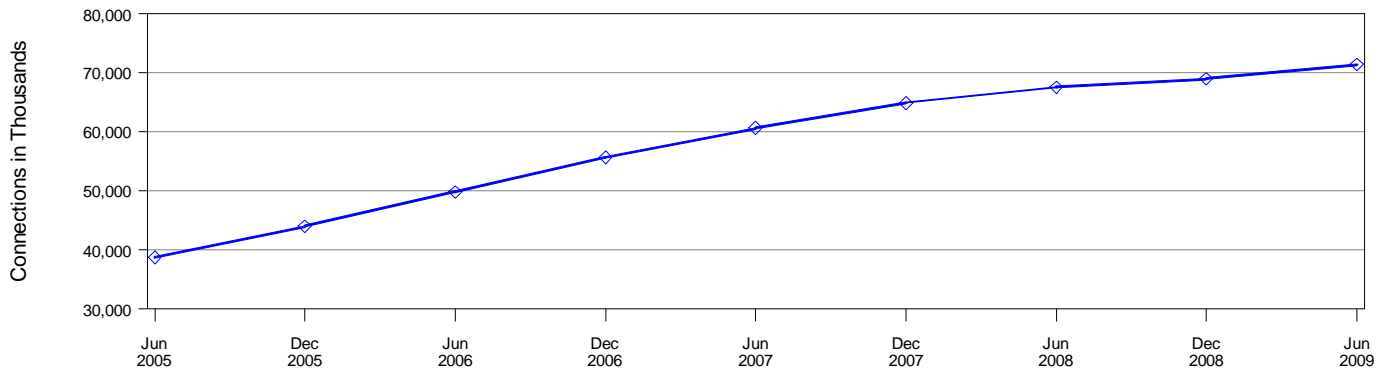


Chart 6
Residential Connections by Technology as of June 30, 2009

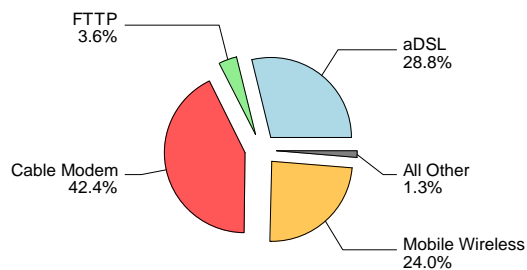


Table 4
Residential Connections over 200 kbps in Both Directions 2005-2009
(In thousands)

<i>Technology</i>	<i>2005</i>		<i>2006</i>		<i>2007</i>		<i>2008</i>		<i>2009</i>
	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>
Total	34,445	40,323	46,585	53,648	61,371	69,148	74,458	73,163	81,587
Total Fixed	34,443	40,314	45,428	50,956	55,825	60,040	62,934	63,951	67,061
aDSL	11,731	14,242	16,416	18,878	21,106	22,556	23,315	23,045	24,145
sDSL	150	122	103	105	105	82	81	74	71
Other Wireline	2	3	9	13	12	17	32	42	44
Cable Modem	22,324	25,533	28,159	30,771	32,916	35,035	36,600	37,668	39,026
FTTP ¹	83	213	443	763	1,151	1,680	2,137	2,713	3,339
Satellite	2	25	15	23	35	48	63	73	76
Fixed Wireless	146	171	278	399	494	617	700	331	356
Power Line and Other	4	4	5	5	5	5	5	5	5
Mobile Wireless ²	3	9	1,157	2,692	5,545	9,108	11,525	9,212	14,526

¹ Fiber to the premises. See Technical Notes at the end of the report for a description of Form 477 technology categories and other reporting requirements.

² Reporting instructions for mobile wireless changed between the June 2008 and December 2008 data. See Technical Notes at the end of the report.

Note: Some December 2008 data have been revised. Figures may not sum to totals due to rounding.

Source: FCC Form 477, Parts I and VI.

Chart 7
Residential Fixed Connections over 200 kbps in Both Directions 2005-2009

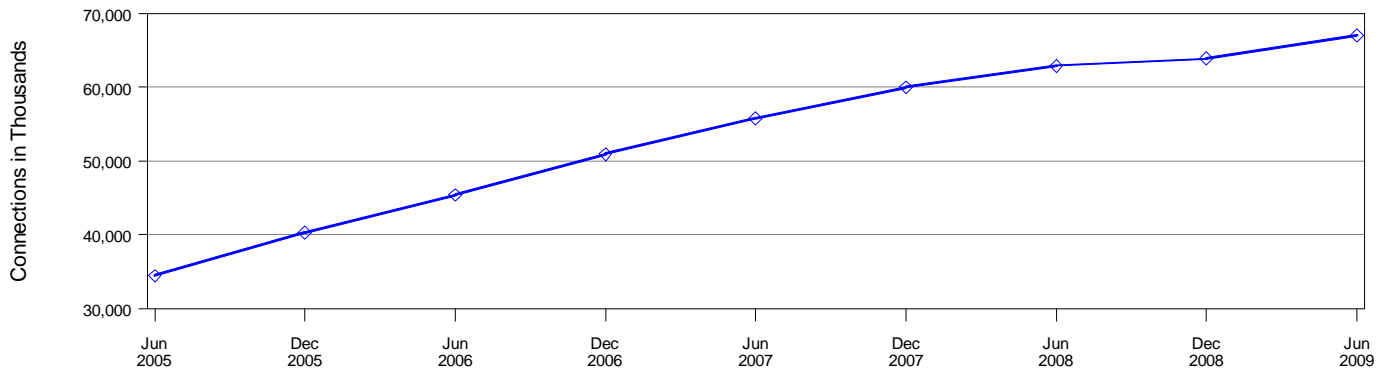


Chart 8
Residential Connections over 200 kbps in Both Directions
by Technology as of June 30, 2009



Chart 9
Residential Fixed Connections 2005-2009
 (Shares of Selected Technologies)

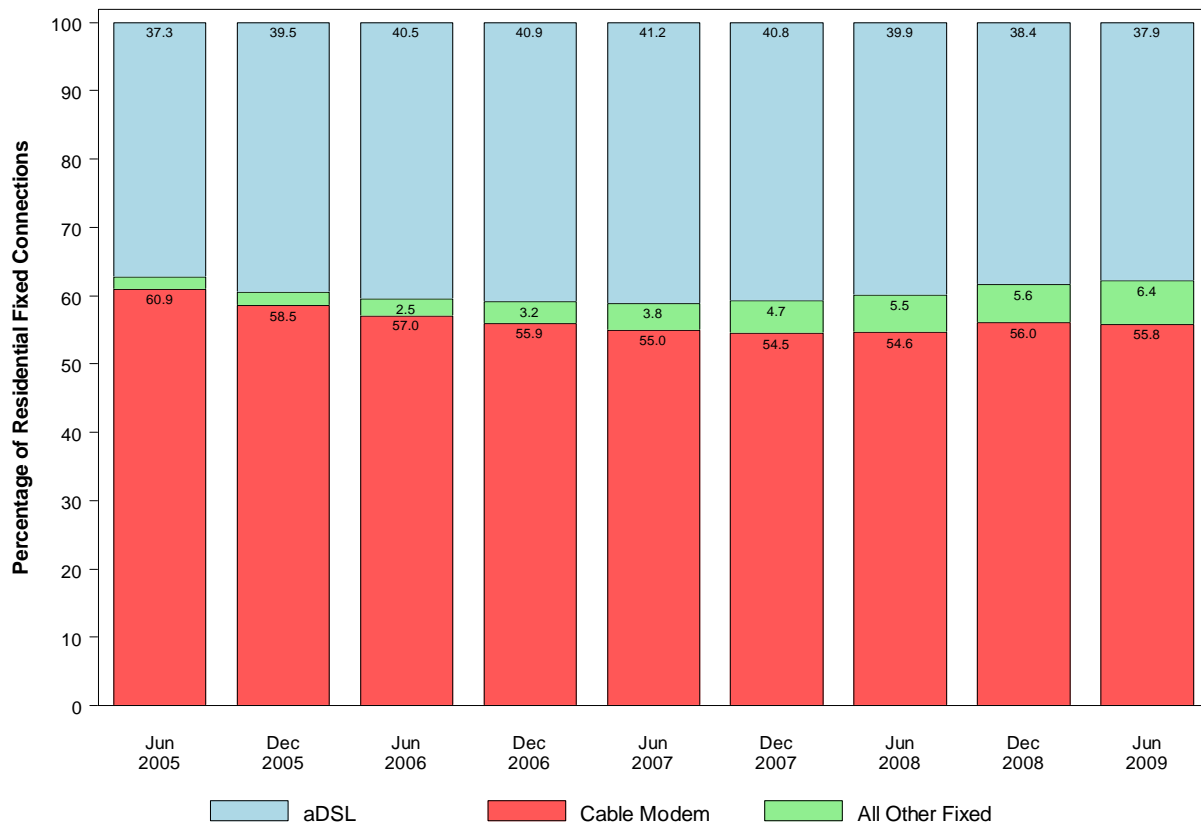


Chart 10
Residential Fixed Connections 2005-2009
 (Net Adds for Selected Technologies)

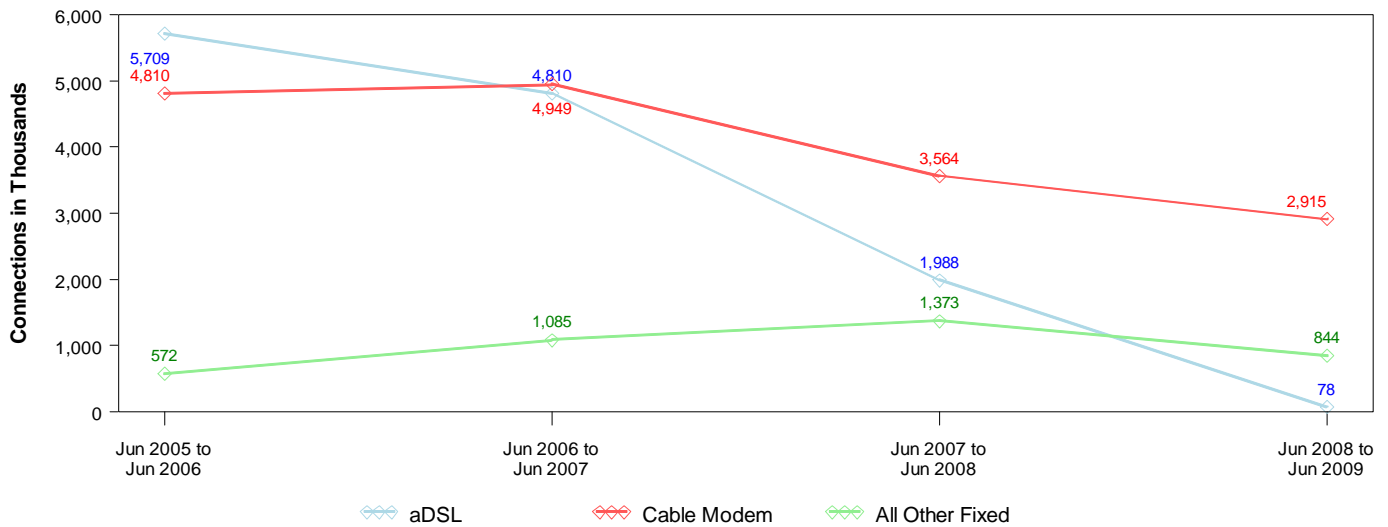
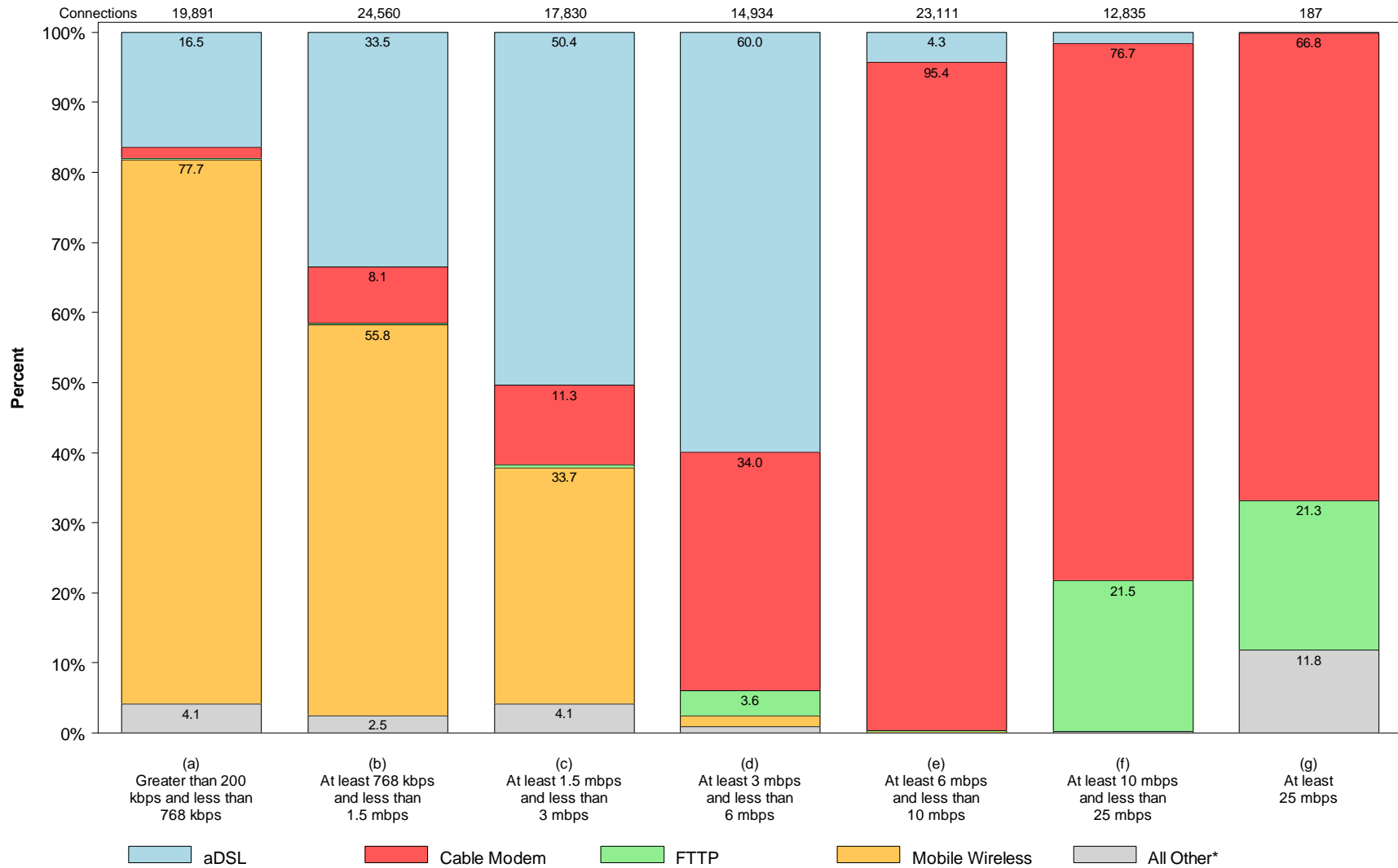


Chart 11
Distribution of Connections by Downstream Speed
Selected Technologies as of June 30, 2009
(In thousands)



* Includes sDSL, Other Wireline, Satellite, Fixed Wireless, Power Line and Other.

Table 5
Residential Connections by Technology and Speed as of June 30, 2009
(In thousands)

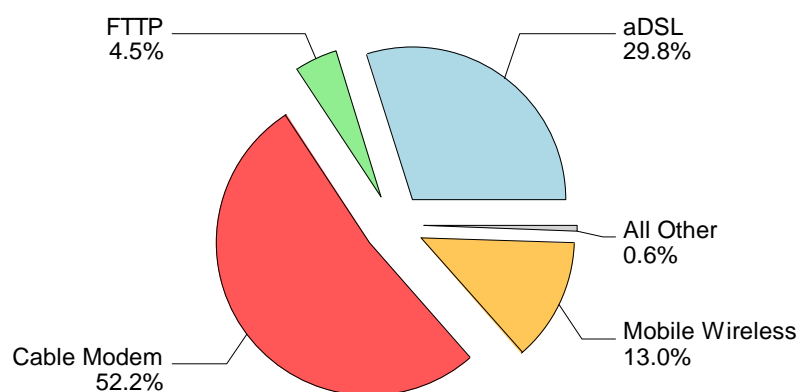
<i>Technology</i>	<i>At Most 200 kbps Upstream or less than 768 kbps Downstream</i>	<i>Over 200 kbps Upstream and at least 768 kbps Downstream</i>	<i>Total</i>
aDSL	4,845	22,183	27,028
sDSL	39	32	71
Other Wireline	7	37	44
Cable Modem	926	38,890	39,816
FTTP	26	3,318	3,344
Satellite	595	73	668
Fixed Wireless	141	274	416
Mobile Wireless	12,858	9,671	22,529
Power Line and Other	2	3	5
Total	19,439	74,481	93,920

= Rounds to Zero.

Note: Figures may not sum to totals due to rounding.

Source: FCC Form 477, Parts I and VI.

Chart 12
Residential Connections (BTOP/BIP Definition) by Technology
as of June 30, 2009



Note: The BTOP/BIP definition is advertised speeds of at least 768 kbps downstream and 200 kbps upstream to end users.

See also p. 2 of the report text.

Source: FCC Form 477, Parts I and VI.

Table 6
Total Connections by Speed Tier as of June 30, 2009
(In thousands)

Technology	200 kbps or less Upstream			Over 200 kbps Upstream								Total
	Download over 200 kbps and less than 768 kbps	Download at least 768 kbps	Subtotal	Download over 200 kbps and less than 768 kbps	Download at least 768 kbps and less than 1.5 mbps	Download at least 1.5 mbps and less than 3 mbps	Download at least 3 mbps and less than 6 mbps	Download at least 6 mbps and less than 10 mbps	Download at least 10 mbps and less than 25 mbps	Download at least 25 mbps	Subtotal	
aDSL	1,129	1,897	3,026	2,146	6,455	8,844	8,958	988	199	#	27,590	30,617
sDSL	0	0	0	97	74	36	8	*	*	#	217	217
Other Wireline	0	0	0	96	87	374	65	25	17	21	686	686
Cable Modem	162	647	809	148	1,418	1,950	5,072	22,037	*	*	40,599	41,407
FTTP	5	#	5	26	43	89	537	42	2,761	40	3,538	3,543
Satellite	473	387	861	*	*	*	*	0	0	0	130	990
Fixed Wireless	47	20	67	94	117	132	59	7	8	1	419	485
Mobile Wireless	8,747	3,933	12,679	6,716	13,596	2,172	224	*	0	*	22,719	35,399
Power Line and Other	0	0	0	*	*	*	*	0	*	*	5	5
Total	10,562	6,885	17,447	9,329	21,808	13,707	14,926	23,110	12,835	187	95,902	113,349

Percentages

aDSL	3.7	6.2	9.9	7.0	21.1	28.9	29.3	3.2	0.6	0.0	90.1	100.0
sDSL	0.0	0.0	0.0	44.7	34.3	16.8	3.7	*	*	0.1	100.0	100.0
Other Wireline	0.0	0.0	0.0	14.1	12.8	54.5	9.5	3.6	2.5	3.1	100.0	100.0
Cable Modem	0.4	1.6	2.0	0.4	3.4	4.7	12.2	53.2	*	*	98.0	100.0
FTTP	0.1	0.0	0.2	0.7	1.2	2.5	15.2	1.2	77.9	1.1	99.8	100.0
Satellite	47.8	39.1	86.9	*	*	*	*	0.0	0.0	0.0	13.1	100.0
Fixed Wireless	9.6	4.1	13.7	19.4	24.1	27.2	12.2	1.5	1.6	0.2	86.3	100.0
Mobile Wireless	24.7	11.1	35.8	19.0	38.4	6.1	0.6	*	0.0	*	64.2	100.0
Power Line and Other	0.0	0.0	0.0	*	*	*	*	0.0	*	*	100.0	100.0
Total	9.3	6.1	15.4	8.2	19.2	12.1	13.2	20.4	11.3	0.2	84.6	100.0

= Rounds to Zero.

* = Data withheld to maintain firm confidentiality.

Note: Figures may not sum to totals due to rounding.

Source: FCC Form 477, Part I.

Table 7
Residential Connections by Speed Tier as of June 30, 2009
(In thousands)

Technology	200 kbps or less Upstream			Over 200 kbps Upstream								Total
	Download over 200 kbps and less than 768 kbps	Download at least 768 kbps	Subtotal	Download over 200 kbps and less than 768 kbps	Download at least 768 kbps and less than 1.5 mbps	Download at least 1.5 mbps and less than 3 mbps	Download at least 3 mbps and less than 6 mbps	Download at least 6 mbps and less than 10 mbps	Download at least 10 mbps and less than 25 mbps	Download at least 25 mbps	Subtotal	
aDSL	1,067	1,817	2,883	1,962	5,951	7,582	7,655	819	176	#	24,145	27,028
sDSL	0	0	0	39	27	3	2	*	*	#	71	71
Other Wireline	0	0	0	7	19	7	1	10	#	0	44	44
Cable Modem	146	644	790	136	1,352	1,807	4,710	21,524	*	*	39,026	39,816
FTTP	4	#	5	21	34	63	517	36	2,653	15	3,339	3,344
Satellite	332	260	592	*	*	*	*	0	0	0	76	668
Fixed Wireless	41	18	60	82	100	114	49	5	6	#	356	416
Mobile Wireless	5,798	2,205	8,003	4,854	8,103	1,361	197	*	0	*	14,526	22,529
Power Line and Other	0	0	0	*	*	*	*	0	*	*	5	5
Total	7,389	4,944	12,333	7,106	15,602	10,995	13,131	22,404	12,258	91	81,587	93,920

Percentages

aDSL	3.9	6.7	10.7	7.3	22.0	28.1	28.3	3.0	0.7	0.0	89.3	100.0
sDSL	0.0	0.0	0.0	55.2	38.5	3.6	2.2	*	*	0.0	100.0	100.0
Other Wireline	0.0	0.0	0.0	15.2	43.0	16.8	2.8	21.8	0.4	0.0	100.0	100.0
Cable Modem	0.4	1.6	2.0	0.3	3.4	4.5	11.8	54.1	*	*	98.0	100.0
FTTP	0.1	0.0	0.1	0.6	1.0	1.9	15.5	1.1	79.3	0.5	99.9	100.0
Satellite	49.7	38.9	88.7	*	*	*	*	0.0	0.0	0.0	11.3	100.0
Fixed Wireless	9.9	4.4	14.3	19.7	24.1	27.4	11.7	1.1	1.6	0.1	85.7	100.0
Mobile Wireless	25.7	9.8	35.5	21.5	36.0	6.0	0.9	*	0.0	*	64.5	100.0
Power Line and Other	0.0	0.0	0.0	*	*	*	*	0.0	*	*	100.0	100.0
Total	7.9	5.3	13.1	7.6	16.6	11.7	14.0	23.9	13.1	0.1	86.9	100.0

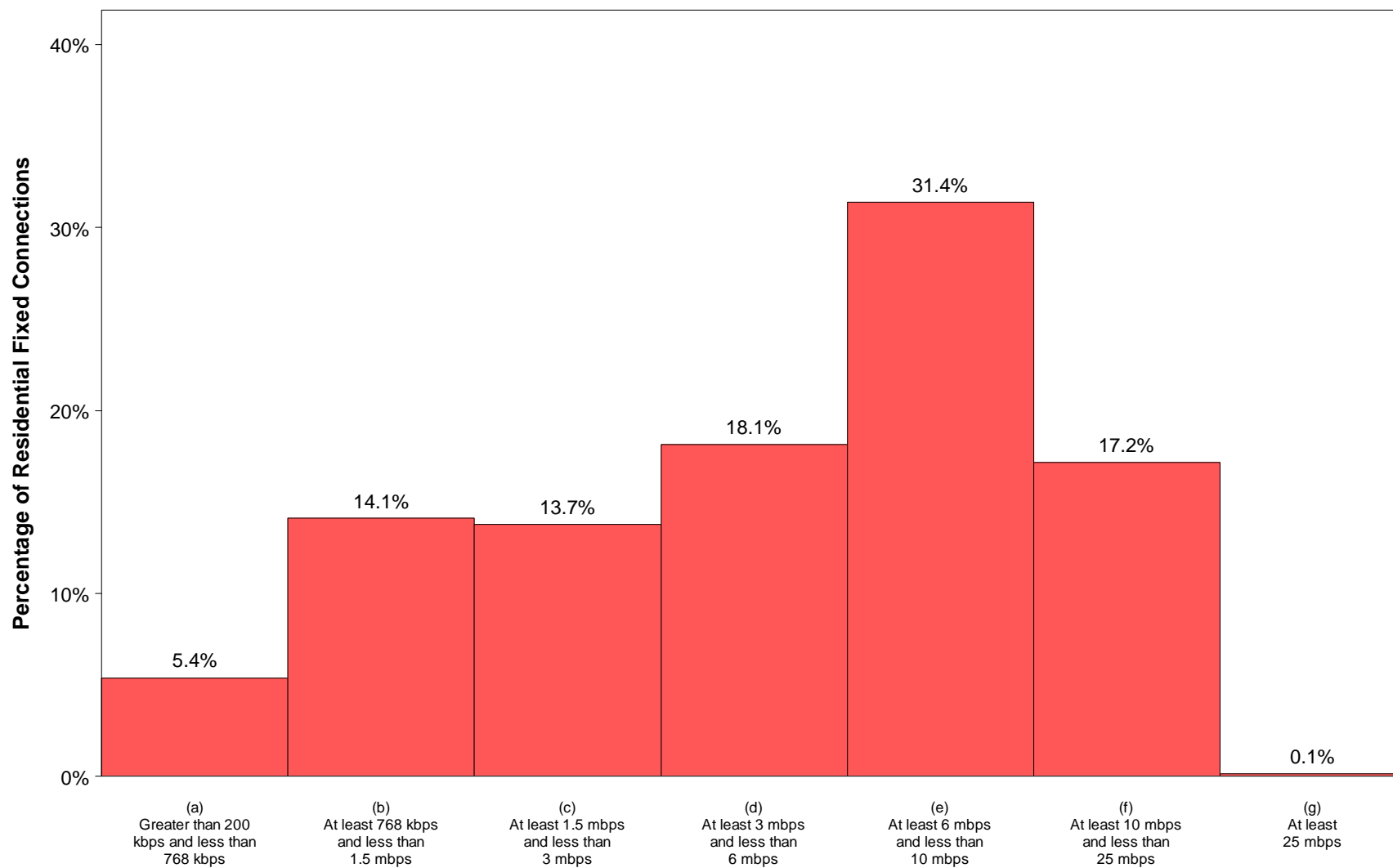
= Rounds to Zero.

* = Data withheld to maintain firm confidentiality.

Note: Figures may not sum to totals due to rounding.

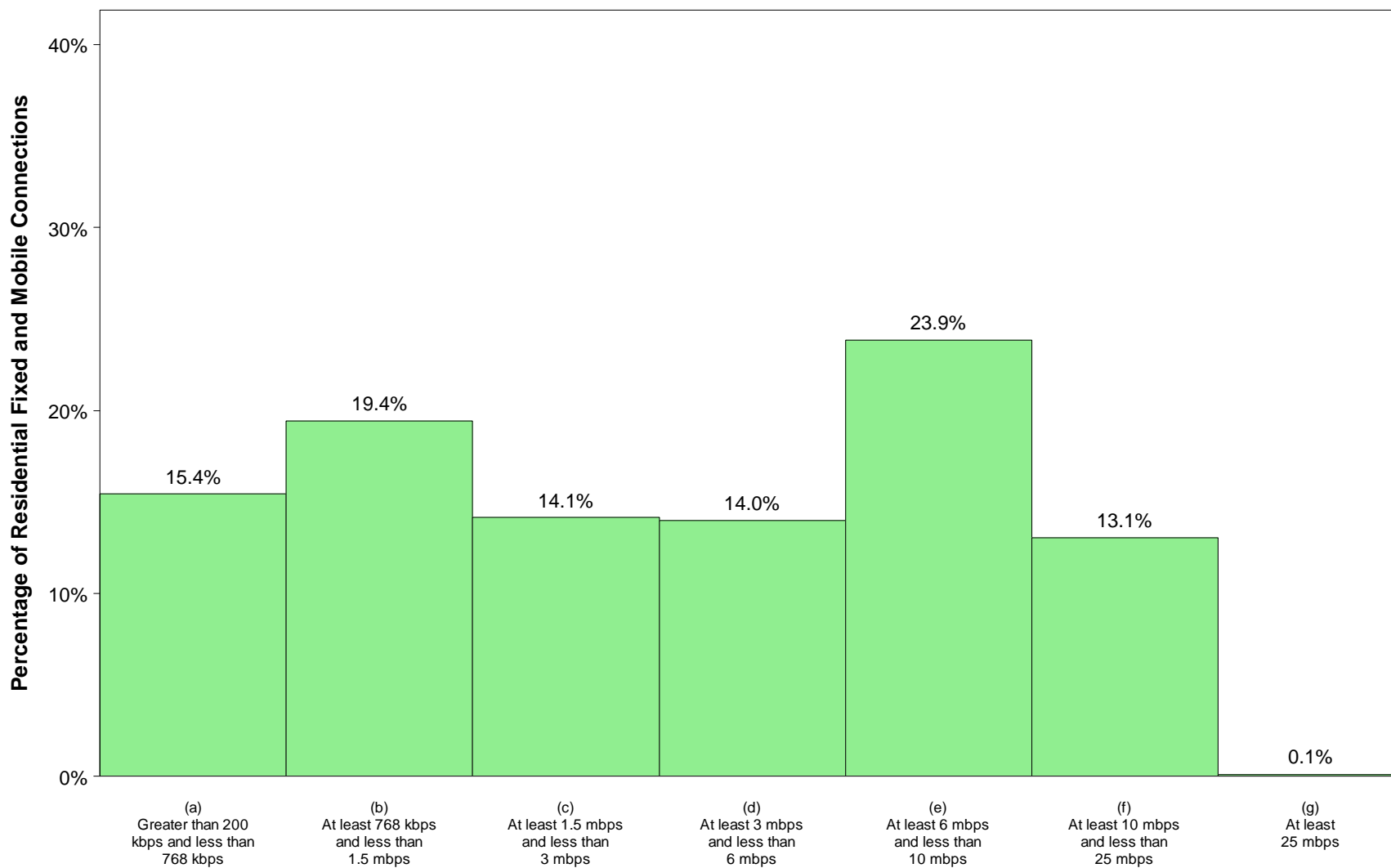
Source: FCC Form 477, Part I.

Chart 13
Distribution of Residential Fixed Connections
by Downstream Speed Tier as of June 30, 2009



Note: Figures may not sum to totals due to rounding.
Source: FCC Form 477, Part VI.

Chart 14
Distribution of Residential Connections
by Downstream Speed Tier as of June 30, 2009



Note: Figures may not sum to totals due to rounding.
Source: FCC Form 477, Parts I and VI.

Table 8
Total Connections and Percentage Residential by Speed Tier as of June 30, 2009
(In thousands)

Upload Speed	Customer Class	Download Speed								Total
		Greater than 200 kbps and less than 768 kbps	At least 768 kbps and less than 1.5 mbps	At least 1.5 mbps and less than 3 mbps	At least 3 mbps and less than 6 mbps	At least 6 mbps and less than 10 mbps	At least 10 mbps and less than 25 mbps	At least 25 mbps and less than 100 mbps	At least 100 mbps	
Less than or equal to 200 kbps	Total Connections	10,562	2,752	4,123	*	1	*	*	0	17,447
	% Residential	70	96	55	18	96	80	0	0	71
Greater than 200 kbps and less than 768 kbps	Total Connections	9,325	9,003	8,573	9,021	7,286	1,200	*	*	44,408
	% Residential	76	93	86	89	99	97	0	100	88
At least 768 and less then 1.5 mbps	Total Connections	3	12,805	4,601	4,926	*	3,316	1	*	40,268
	% Residential	93	56	77	87	96	98	0	0	80
At least 1.5 mbps and less than 3 mbps	Total Connections	1	#	533	793	*	6,280	4	*	8,773
	% Residential	73	91	10	91	97	94	88	0	89
At least 3 mbps and less than 6 mbps	Total Connections	*	*	#	185	11	1,853	122	*	2,172
	% Residential	76	19	81	54	17	96	60	0	90
At least 6 mbps and less than 10 mbps	Total Connections	0	*	0	*	37	8	*	0	45
	% Residential	0	58	0	0	48	96	0	0	57
At least 10 mbps and less than 25 mbps	Total Connections	*	0	0	0	*	178	9	*	187
	% Residential	0	0	0	0	0	73	75	0	73
At least 25 mbps and less than 100 mbps	Total Connections	0	0	0	0	0	*	22	*	22
	% Residential	0	0	0	0	0	0	12	0	12
At least 100 mbps	Total Connections	0	0	0	0	0	0	0	28	28
	% Residential	0	0	0	0	0	0	0	16	16
Total	Total Connections	19,891	24,560	17,830	14,934	23,111	12,835	158	29	113,349
	% Residential	73	74	74	88	97	96	54	15	83

= Rounds to Zero.

* = Data withheld to maintain firm confidentiality.

Note: Figures may not sum to totals due to rounding.

Source: FCC Form 477, Parts I and VI.

Table 9
Fixed Connections and Percentage Residential by Speed Tier as of June 30, 2009
(In thousands)

Upload Speed	Customer Class	Download Speed								Total
		Greater than 200 kbps and less than 768 kbps	At least 768 kbps and less than 1.5 mbps	At least 1.5 mbps and less than 3 mbps	At least 3 mbps and less than 6 mbps	At least 6 mbps and less than 10 mbps	At least 10 mbps and less than 25 mbps	At least 25 mbps and less than 100 mbps	At least 100 mbps	
Less than or equal to 200 kbps	Total Connections	1,816	2,654	*	8	1	*	*	0	4,768
	% Residential	88	96	62	18	96	80	0	0	91
Greater than 200 kbps and less than 768 kbps	Total Connections	2,609	7,209	8,173	9,016	*	1,200	*	*	35,481
	% Residential	86	92	86	89	99	97	0	100	91
At least 768 and less then 1.5 mbps	Total Connections	3	1,003	2,831	*	14,614	3,316	1	*	26,694
	% Residential	93	84	92	87	96	98	0	0	94
At least 1.5 mbps and less than 3 mbps	Total Connections	1	#	*	575	1,162	6,280	4	*	8,554
	% Residential	73	91	10	92	97	94	88	0	89
At least 3 mbps and less than 6 mbps	Total Connections	*	#	#	185	11	1,853	122	*	2,172
	% Residential	76	19	81	54	17	96	60	0	90
At least 6 mbps and less than 10 mbps	Total Connections	0	*	0	*	37	8	*	0	45
	% Residential	0	58	0	0	48	96	0	0	57
At least 10 mbps and less than 25 mbps	Total Connections	*	0	0	0	*	178	9	*	187
	% Residential	0	0	0	0	0	73	75	0	73
At least 25 mbps and less than 100 mbps	Total Connections	0	0	0	0	0	*	22	*	22
	% Residential	0	0	0	0	0	0	12	0	12
At least 100 mbps	Total Connections	0	0	0	0	0	0	0	28	28
	% Residential	0	0	0	0	0	0	0	16	16
Total	Total Connections	4,428	*	11,824	14,709	*	12,835	158	29	77,950
	% Residential	87	93	83	88	97	96	54	15	92

= Rounds to Zero.

* = Data withheld to maintain firm confidentiality.

Note: Figures may not sum to totals due to rounding.

Source: FCC Form 477, Parts I and VI.

Table 10
Nationwide Number of Providers of Connections
over 200 Kbps in at Least One Direction by Technology as of June 30, 2009

<i>Technology</i>	<i>2005</i>		<i>2006</i>		<i>2007</i>		<i>2008</i>		<i>2009</i>
	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>	<i>Dec</i>	<i>Jun</i>
aDSL	758	818	833	858	864	856	863	882	873
sDSL	270	269	256	257	242	233	238	264	256
Other Wireline	206	241	246	256	246	250	259	291	283
Cable Modem	227	242	254	279	282	292	296	341	350
FTTP	138	170	187	222	251	276	308	432	460
Satellite	10	4	5	5	5	5	4	5	4
Fixed Wireless	423	463	452	505	484	514	505	618	615
Mobile Wireless	13	15	19	24	19	22	24	47	48
Power Line and Other	18	7	6	6	6	7	6	5	6
Total	1,270	1,345	1,327	1,396	1,374	1,399	1,395	1,559	1,543

Note: Some December 2008 data have been revised. Multiple Form 477 filers within a holding company structure count as one provider.
Source: FCC Form 477, Part I.

Chart 15
Nationwide Number of Providers of Connections over 200 kbps in at Least One Direction
Selected Technologies 2005-2009

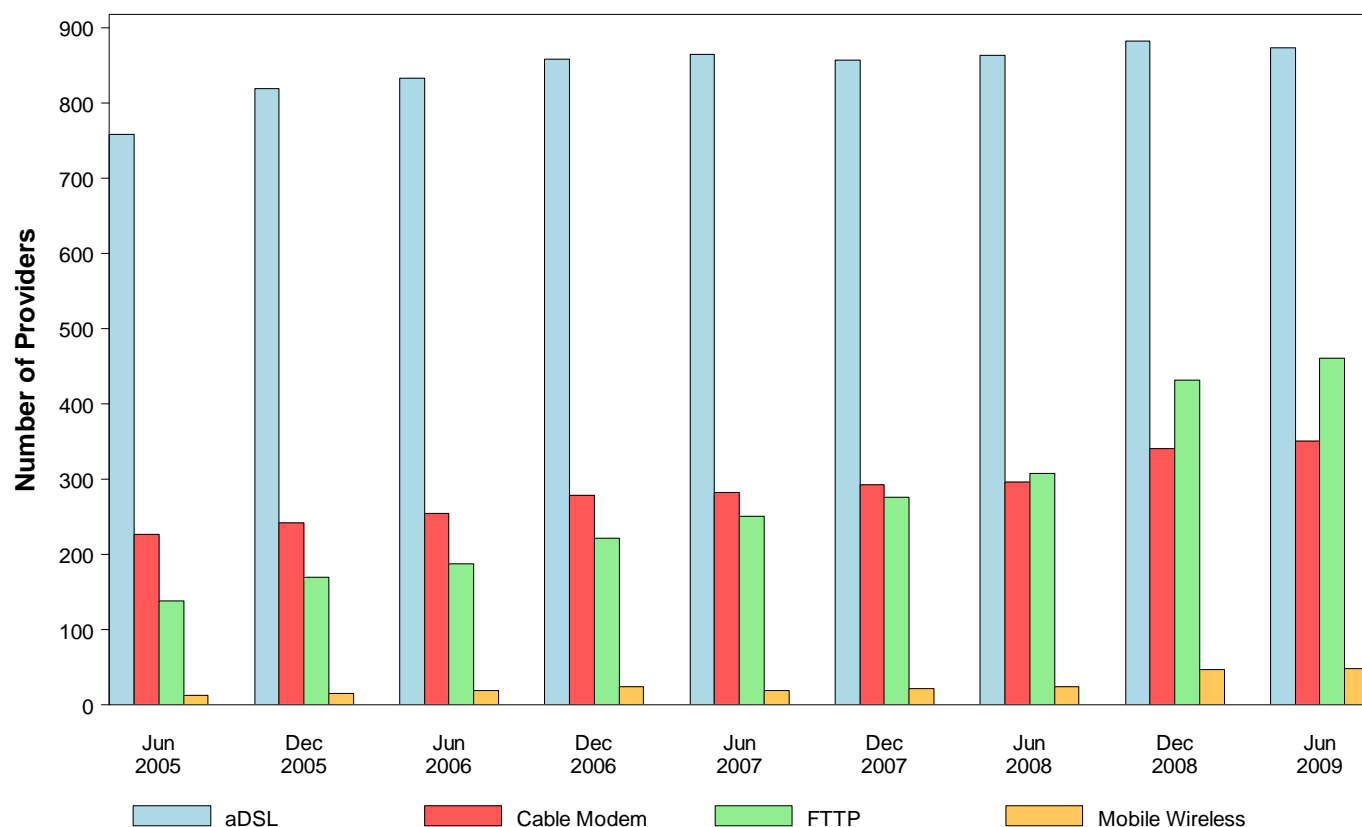
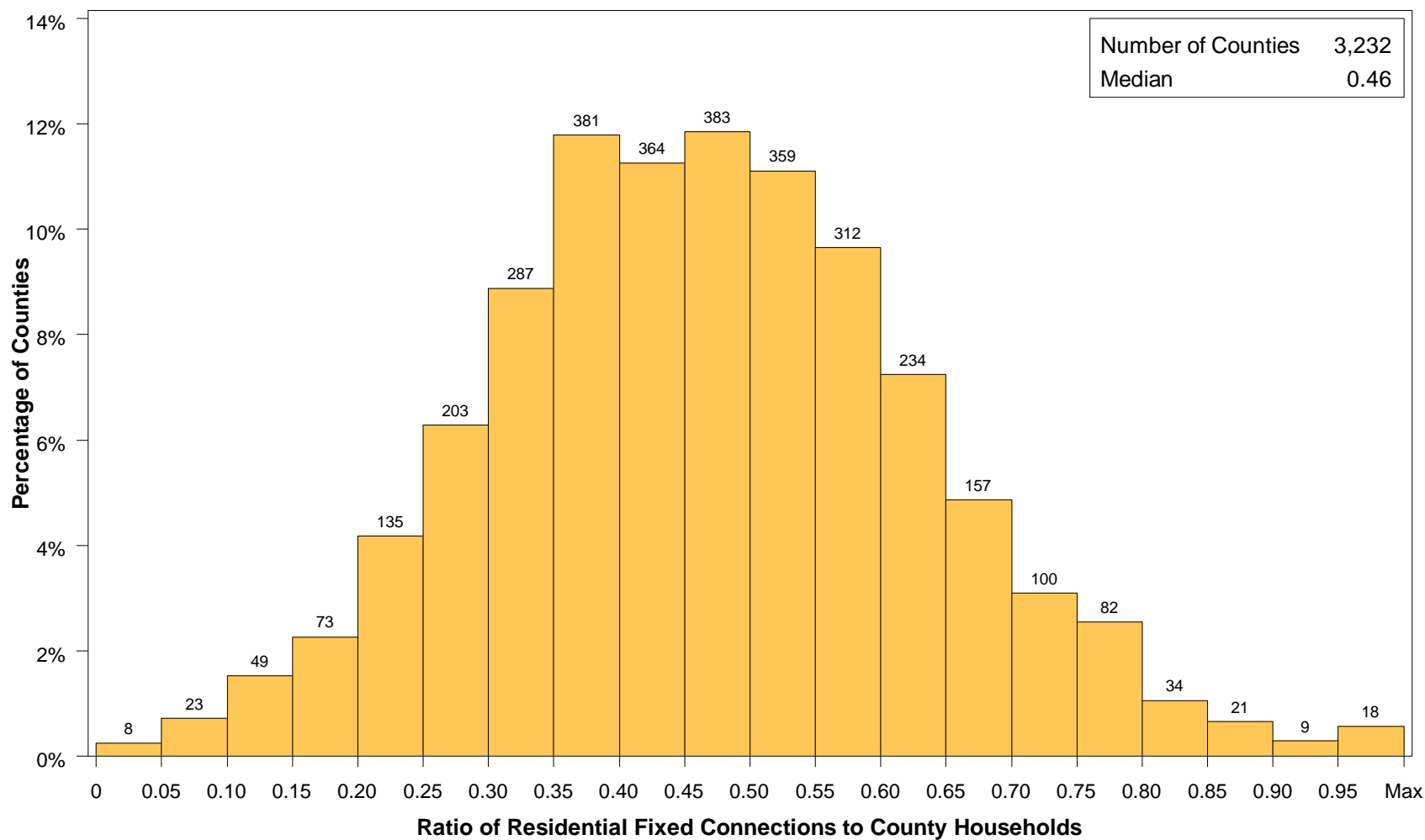


Chart 16
Distribution of Counties by Ratio of Residential Fixed Connections to County Households
as of June 30, 2009



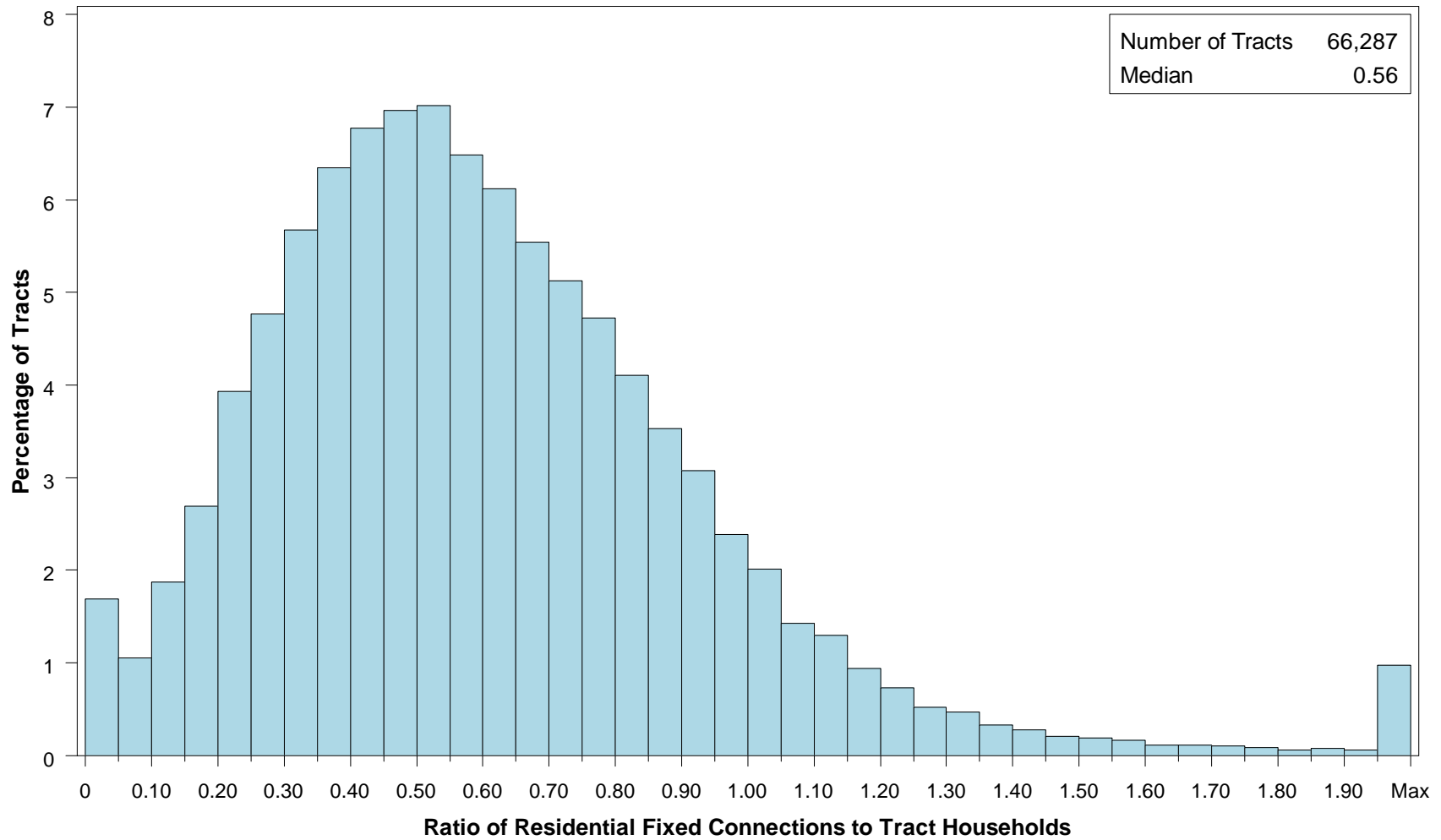
Note: Ratios over 1 were set to 1. See Technical Notes at the end of the report.
 Sources: FCC Form 477, Part VI; Geolytics 2009 Block-Level Estimates; and Census 2000.

Table 11
Distribution of Counties by Ratio of Residential Fixed Connections to County Households
by Technology as of June 30, 2009

<i>Technology</i>	<i>Ratio of Residential Fixed Connections to County Households</i>										
	<i>Zero</i>	<i>Greater than 0 and no more than 5%</i>	<i>Greater than 5 and no more than 10%</i>	<i>Greater than 10 and no more than 20%</i>	<i>Greater than 20 and no more than 30%</i>	<i>Greater than 30 and no more than 40%</i>	<i>Greater than 40 and no more than 50%</i>	<i>Greater than 50 and no more than 60%</i>	<i>Greater than 60 and no more than 80%</i>	<i>Greater than 80 and no more than 100%</i>	<i>100% or more</i>
aDSL	0.6	1.8	6.2	31.7	32.9	18.9	5.9	1.4	0.6	0.1	0.0
sDSL	83.6	15.0	0.5	0.3	0.2	0.3	0.0	0.0	0.0	0.0	0.0
Other Wireline	95.2	4.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cable Modem	15.5	11.9	11.6	19.8	18.0	11.8	7.1	3.2	0.9	0.1	0.1
FTTP	73.7	19.9	2.5	2.0	1.1	0.6	0.2	0.0	0.0	0.0	0.0
Satellite	1.0	94.1	4.4	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fixed Wireless	51.5	39.8	5.4	2.4	0.6	0.1	0.0	0.0	0.0	0.0	0.0
Power Line	99.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All Other	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.1	0.1	0.7	3.8	10.4	20.7	23.1	20.7	17.7	2.1	0.4

Note: Figures may not sum to totals due to rounding. See Technical Notes at the end of the report.
Sources: FCC Form 477, Part VI; Geolytics 2009 Block-Level Estimates; and Census 2000.

Chart 17
Distribution of Census Tracts by Ratio of Residential Fixed Connections to Tract Households
as of June 30, 2009



Note: Ratios over 2 were set to 2. See Technical Notes at the end of the report.
 Sources: FCC Form 477, Part VI; Geolytics 2009 Block-Level Estimates; and Census 2000.

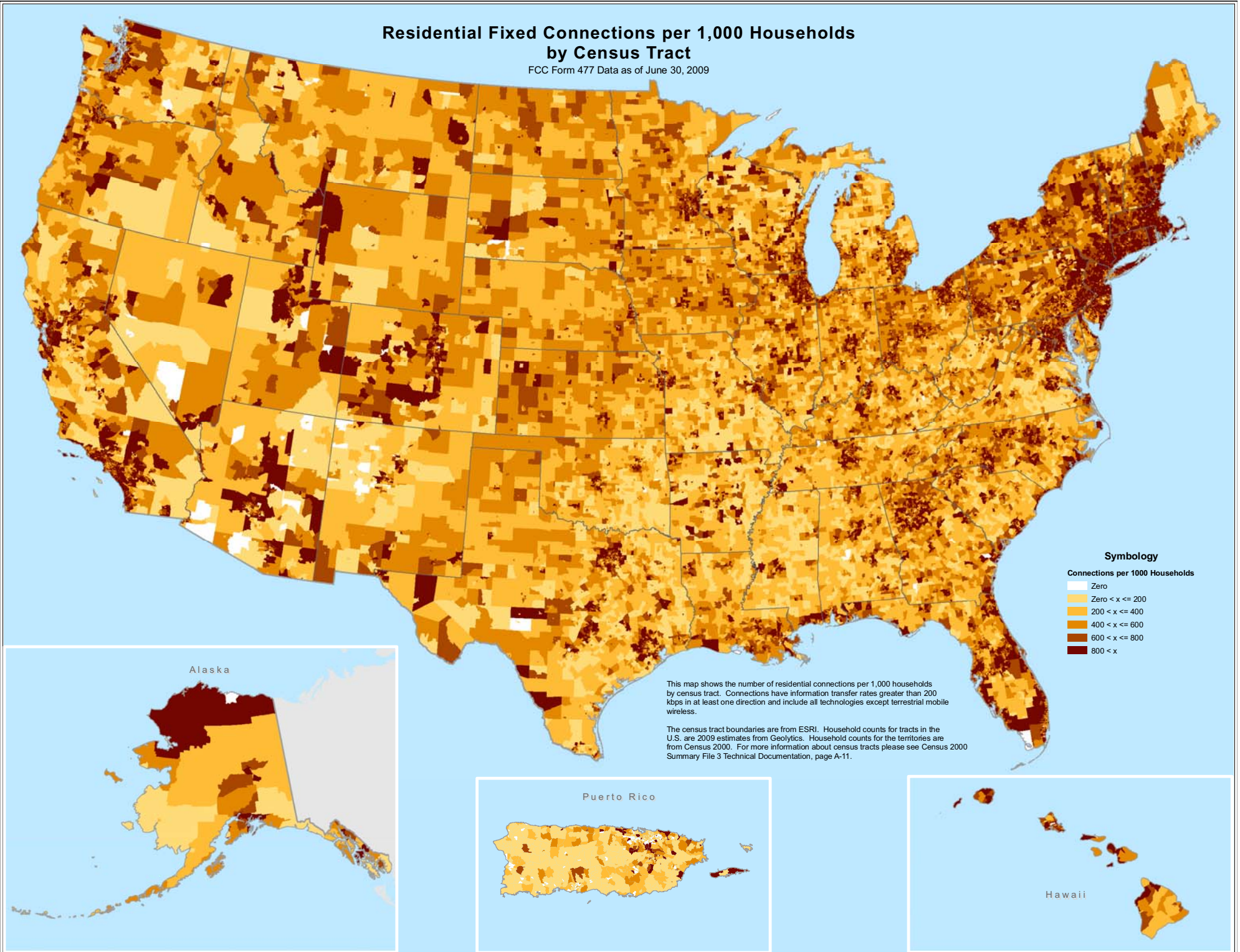
Table 12
Distribution of Census Tracts by Ratio of Residential Fixed Connections to Tract Households
by Technology as of June 30, 2009

<i>Technology</i>	<i>Ratio of Residential Fixed Connections to Tract Households</i>										
	<i>Zero</i>	<i>Greater than 0 and no more than 5%</i>	<i>Greater than 5 and no more than 10%</i>	<i>Greater than 10 and no more than 20%</i>	<i>Greater than 20 and no more than 30%</i>	<i>Greater than 30 and no more than 40%</i>	<i>Greater than 40 and no more than 50%</i>	<i>Greater than 50 and no more than 60%</i>	<i>Greater than 60 and no more than 80%</i>	<i>Greater than 80 and no more than 100%</i>	<i>100% or more</i>
aDSL	4.4	10.2	10.3	26.3	20.9	13.4	7.0	3.4	2.4	0.8	0.9
sDSL	94.6	5.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other Wireline	99.3	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cable Modem	7.8	4.4	5.1	14.6	16.7	15.9	13.7	9.5	8.4	2.3	1.6
FTTP	85.2	5.4	1.6	2.4	1.9	1.3	1.0	0.6	0.5	0.1	0.1
Satellite	45.7	50.9	2.7	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fixed Wireless	0.0	86.8	10.7	1.3	0.8	0.2	0.1	0.0	0.0	0.0	0.0
Power Line	99.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
All Other	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	1.0	0.7	1.0	4.6	8.7	12.0	13.8	13.5	21.5	13.1	10.1

Note: Figures may not sum to totals due to rounding. See Technical Notes at the end of the report.
Sources: FCC Form 477, Part VI; Geolytics 2009 Block-Level Estimates; and Census 2000.

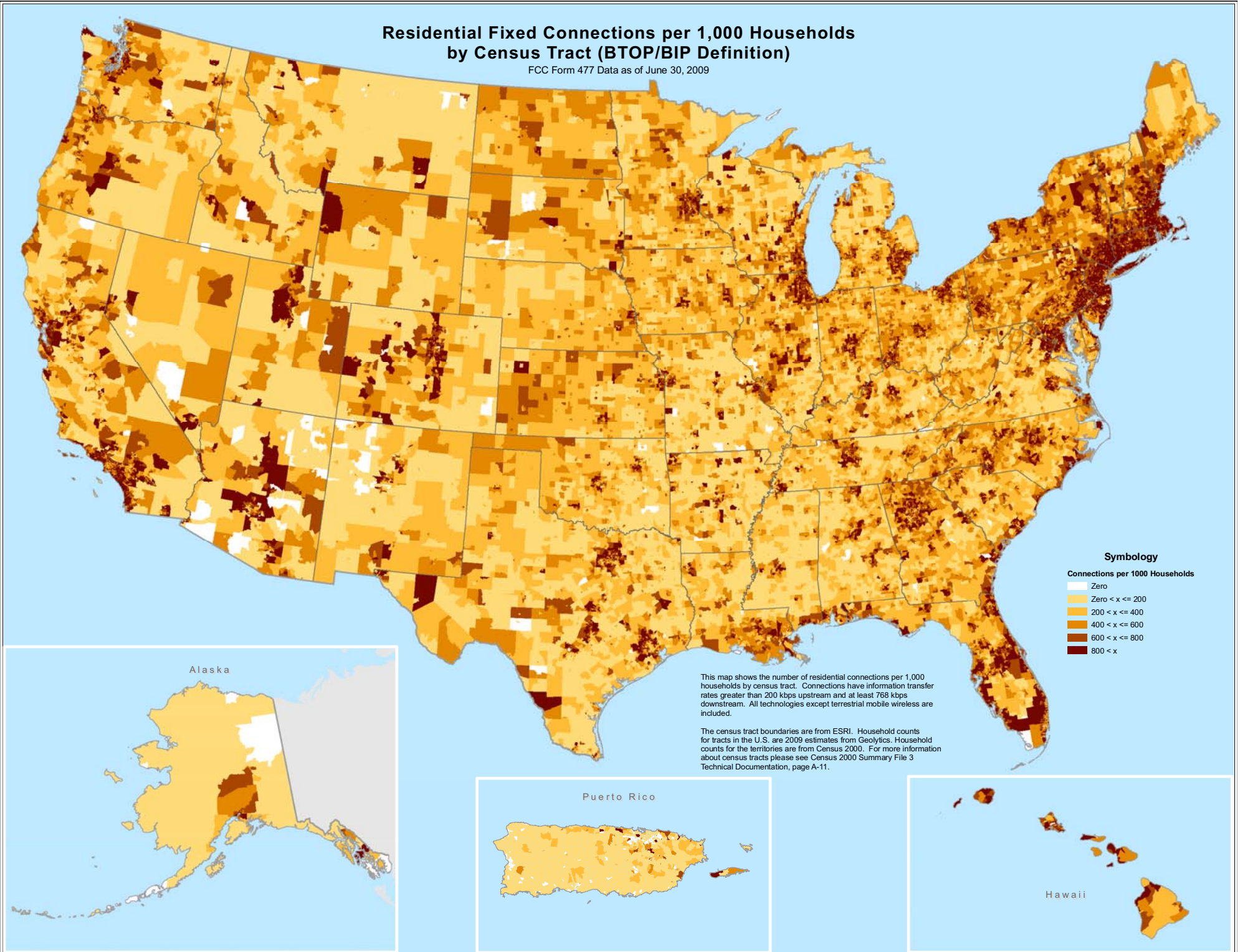
Residential Fixed Connections per 1,000 Households by Census Tract

FCC Form 477 Data as of June 30, 2009



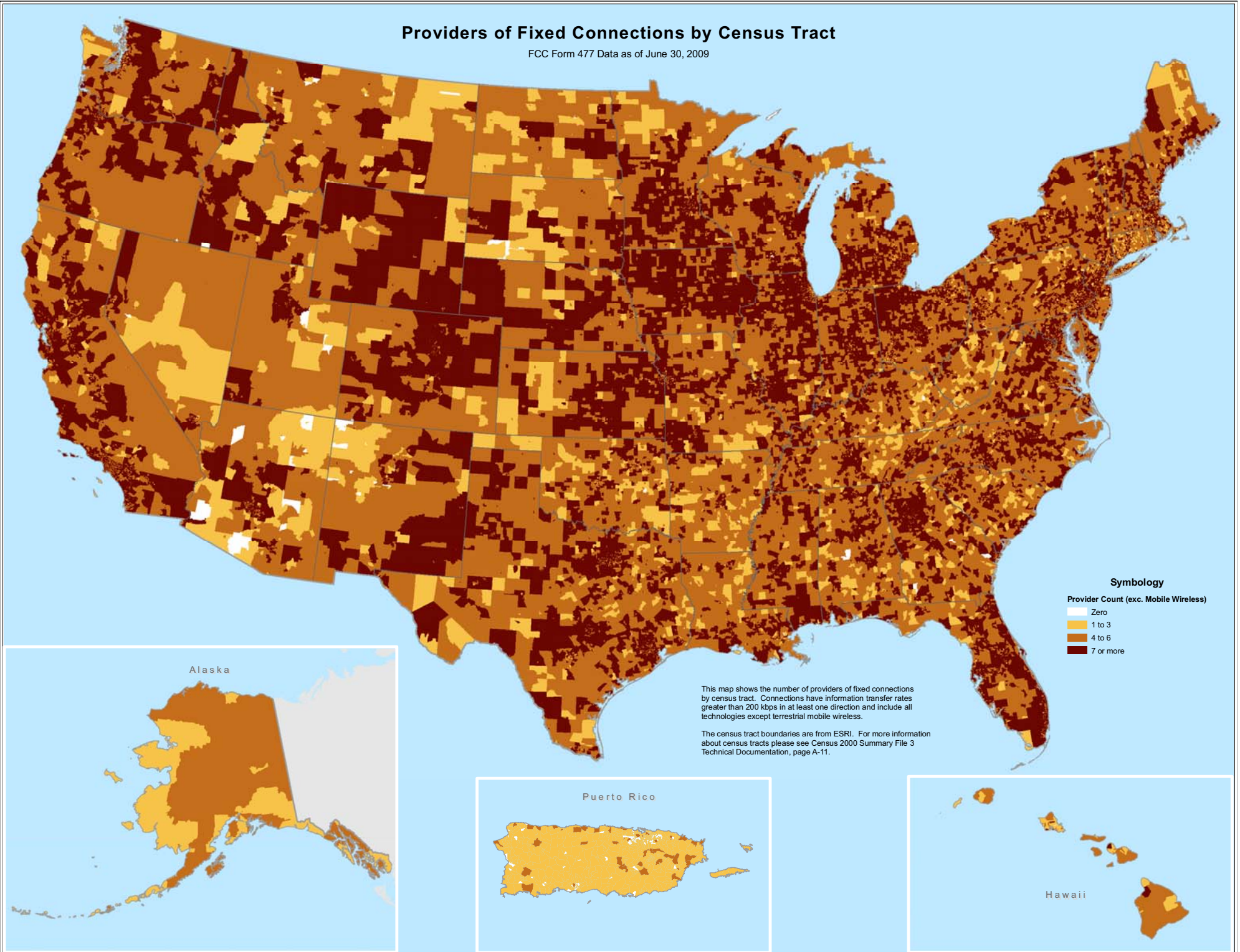
Residential Fixed Connections per 1,000 Households by Census Tract (BTOP/BIP Definition)

FCC Form 477 Data as of June 30, 2009



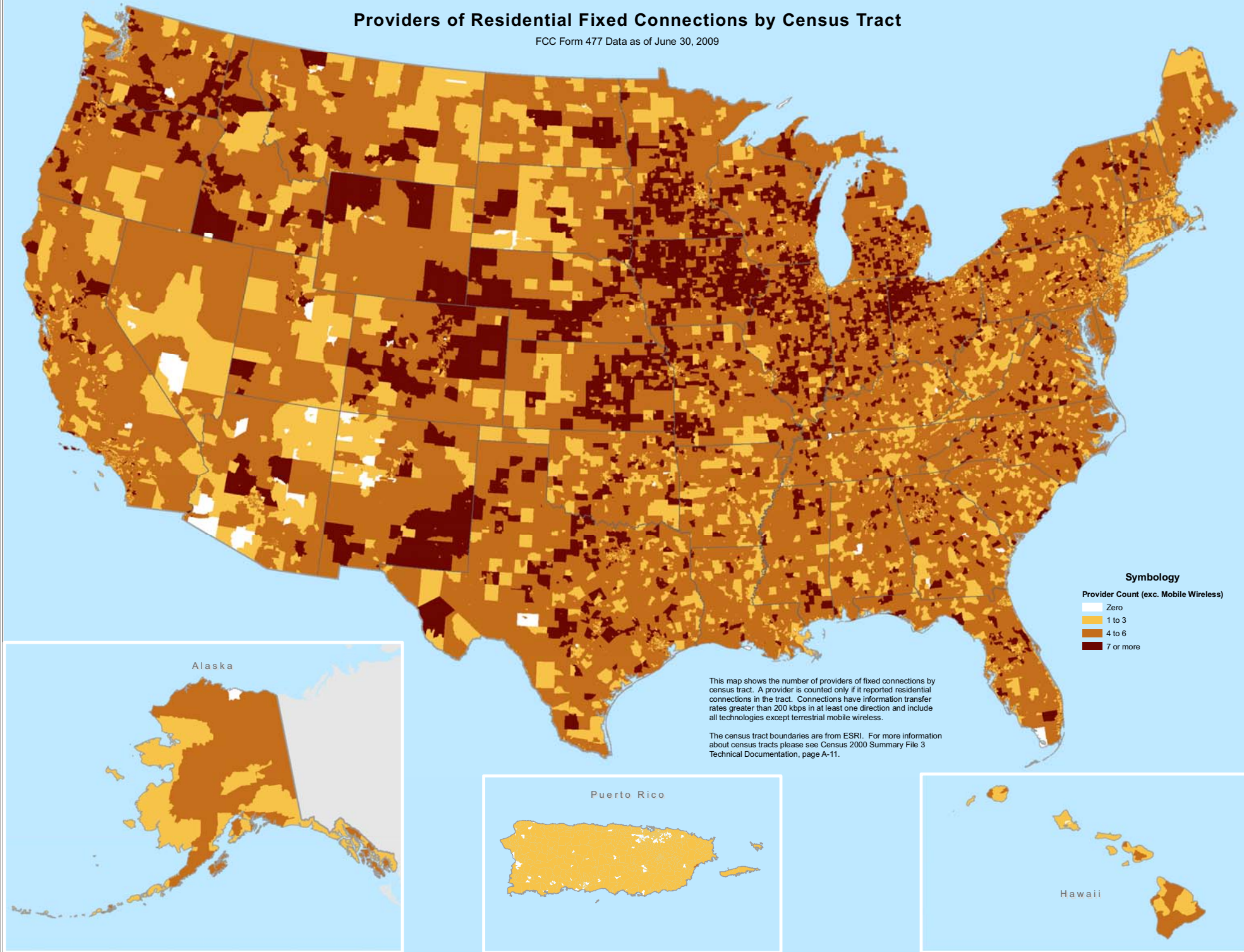
Providers of Fixed Connections by Census Tract

FCC Form 477 Data as of June 30, 2009



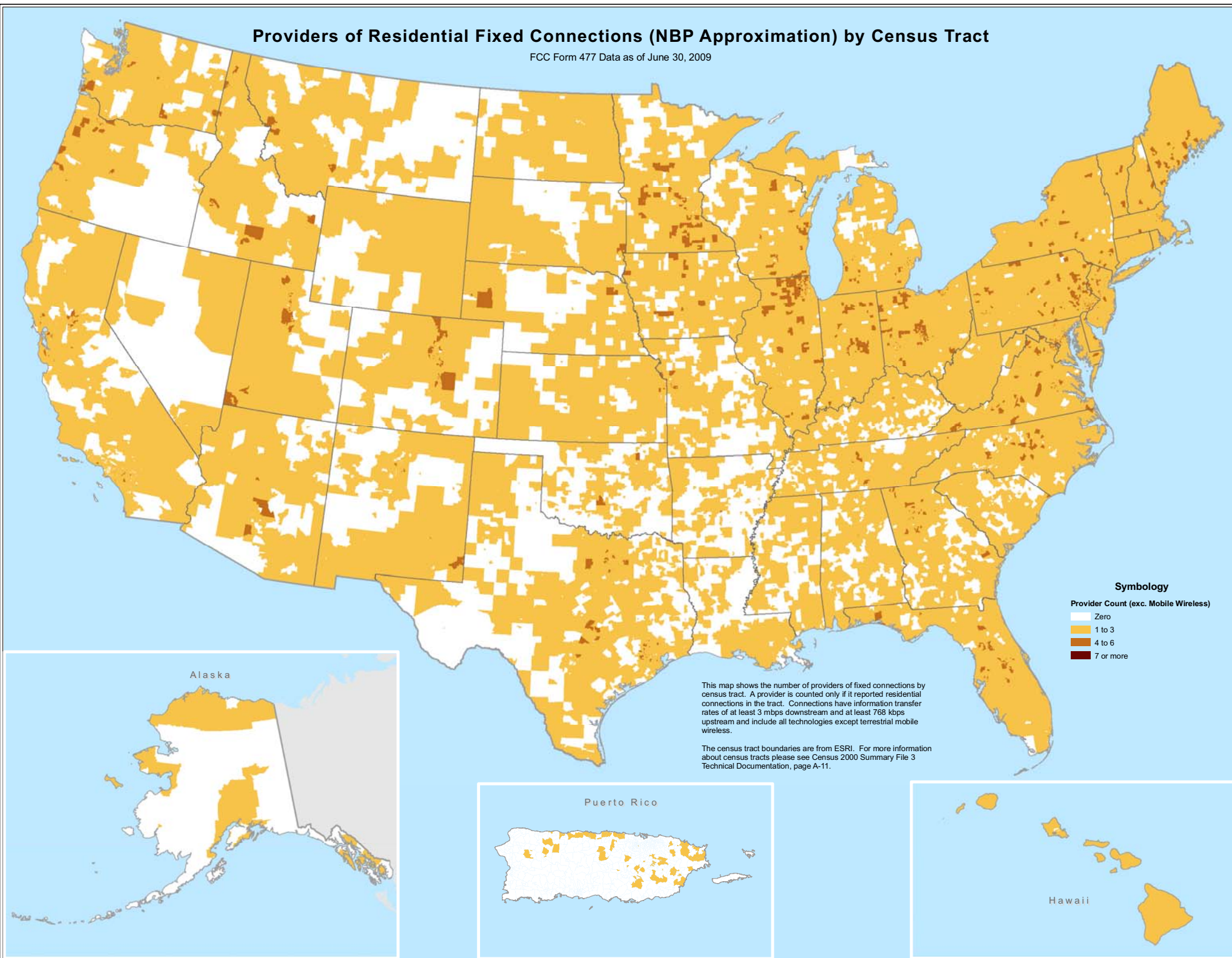
Providers of Residential Fixed Connections by Census Tract

FCC Form 477 Data as of June 30, 2009



Providers of Residential Fixed Connections (NBP Approximation) by Census Tract

FCC Form 477 Data as of June 30, 2009



Providers of Mobile Connections by Census Tract

FCC Form 477 Data as of June 30, 2009

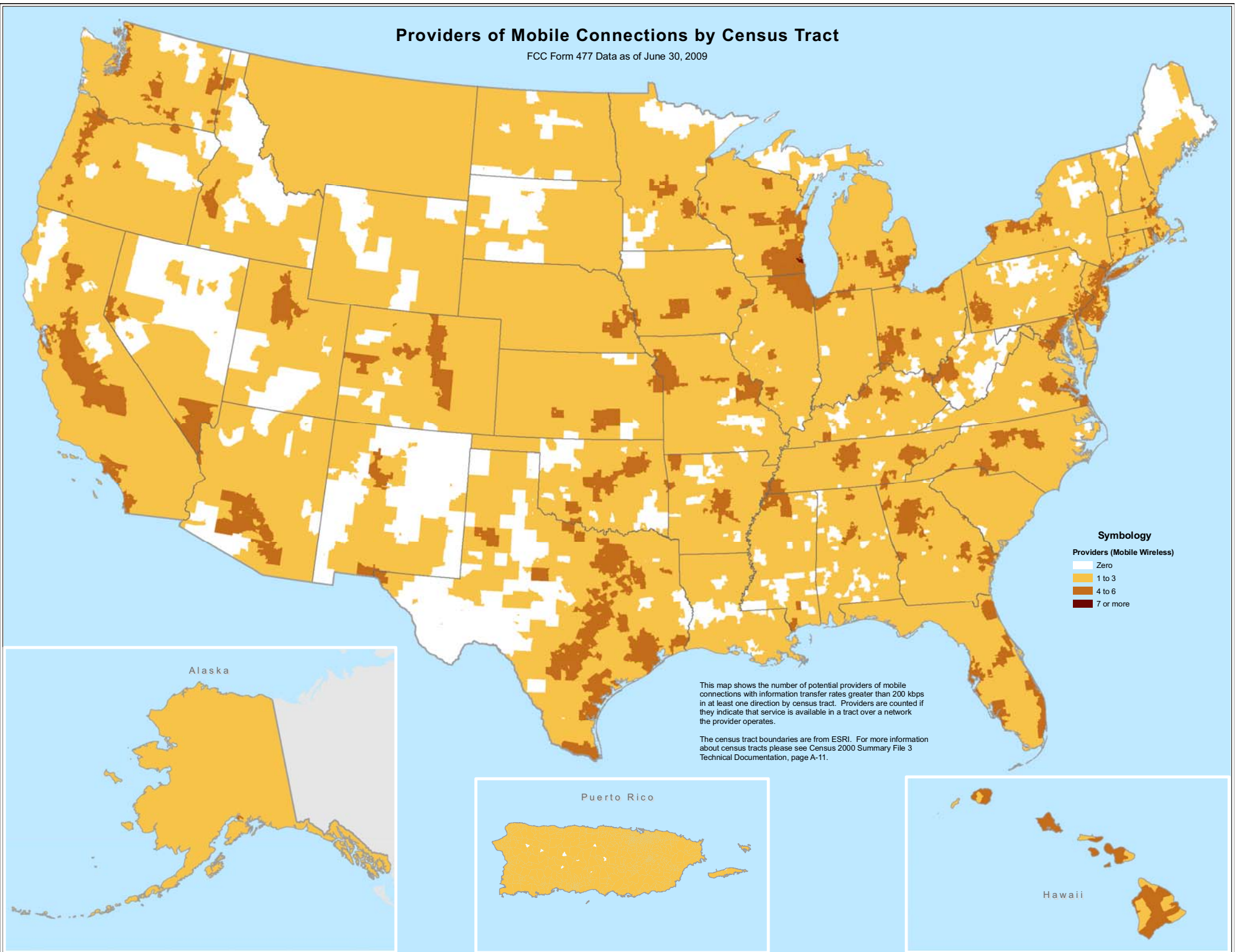


Table 13
Percentage of Census Tracts with Residential Fixed Connections by Technology as of June 30, 2009
(Connections over 200 kbps in at least one direction)

<i>Technology</i>	<i>Number of Providers</i>							
	<i>Zero</i>	<i>One</i>	<i>Two</i>	<i>Three</i>	<i>Four</i>	<i>Five</i>	<i>Six</i>	<i>Seven or More</i>
aDSL	4.4	42.4	38.3	12.3	2.3	0.3	0.0	0.0
sDSL	94.6	5.1	0.4	0.0	0.0	0.0	0.0	0.0
Other Wireline	99.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0
Cable Modem	7.8	79.5	12.1	0.6	0.0	0.0	0.0	0.0
FTTP	85.2	14.4	0.4	0.0	0.0	0.0	0.0	0.0
Satellite	45.7	24.4	24.8	5.1	0.0	0.0	0.0	0.0
Fixed Wireless	86.8	10.6	2.1	0.4	0.1	0.0	0.0	0.0
Power Line	99.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0
aDSL and/or Cable Modem and/or FTTP	1.4	6.5	36.0	35.8	15.7	3.8	0.6	0.1
Any Technology	1.0	2.5	15.9	26.3	26.1	16.4	7.5	4.4

Note: Figures may not sum to totals due to rounding.
Sources: FCC Form 477, Part VI and Census 2000.

Table 14
Connections by Technology by State as of June 30, 2009
(Connections over 200 kbps in at least one direction, in thousands)

<i>State</i>	<i>ADSL</i>	<i>SDSL</i>	<i>Other Wireline</i>	<i>Cable Modem</i>	<i>Fiber</i>	<i>Satellite</i>	<i>Fixed Wireless</i>	<i>Mobile Wireless</i>	<i>Power Line and Other</i>	<i>Total</i>
Alabama	473	4	10	482	4	*	2	400	*	1,398
Alaska	77	4	#	*	#	*	5	89	0	277
American Samoa	*	*	0	0	0	0	*	0	0	*
Arizona	487	1	14	1,043	3	*	20	734	*	2,314
Arkansas	298	#	*	254	2	*	1	271	0	849
California	4,587	19	*	4,157	407	*	22	4,817	0	14,191
Colorado	641	2	*	703	4	*	33	624	0	2,045
Connecticut	*	3	5	627	2	*	*	457	0	1,539
Delaware	*	#	3	*	*	*	0	112	0	368
District of Columbia	*	1	5	*	1	*	*	224	0	421
Florida	1,962	4	*	2,896	274	*	5	2,127	0	7,368
Georgia	1,251	2	*	1,035	19	*	#	1,119	0	3,484
Guam	*	*	*	*	0	0	0	*	0	30
Hawaii	*	*	1	*	1	*	*	206	0	565
Idaho	169	#	*	130	2	*	20	174	0	505
Illinois	1,538	8	*	1,597	7	*	38	1,488	0	4,744
Indiana	699	4	8	649	60	*	24	553	*	2,021
Iowa	352	3	*	344	12	*	22	234	0	987
Kansas	250	1	*	419	18	*	19	306	0	1,031
Kentucky	431	10	*	483	4	*	4	268	0	1,221
Louisiana	390	1	*	546	21	*	3	562	0	1,551
Maine	123	5	1	224	2	*	*	66	0	429
Maryland	440	3	16	782	*	*	1	858	0	2,474
Massachusetts	*	5	16	1,253	*	*	1	803	0	2,799
Michigan	834	8	17	1,460	4	*	19	851	*	3,240
Minnesota	573	20	*	687	17	*	13	510	0	1,850
Mississippi	239	1	*	230	1	*	#	237	0	737
Missouri	767	1	13	562	5	*	13	560	*	1,961
Montana	111	4	2	102	1	*	13	*	0	359
Nebraska	158	1	*	286	2	*	17	196	0	667

Table 14 - Continued
Connections by Technology by State as of June 30, 2009
(Connections over 200 kbps in at least one direction, in thousands)

<i>State</i>	<i>ADSL</i>	<i>SDSL</i>	<i>Other Wireline</i>	<i>Cable Modem</i>	<i>Fiber</i>	<i>Satellite</i>	<i>Fixed Wireless</i>	<i>Mobile Wireless</i>	<i>Power Line and Other</i>	<i>Total</i>
Nevada	225	1	6	*	1	*	3	367	0	1,034
New Hampshire	91	2	3	294	*	*	#	121	0	531
New Jersey	624	3	26	1,631	*	*	*	1,266	0	3,914
New Mexico	242	#	*	159	2	*	16	203	0	633
New York	1,100	17	36	3,851	*	*	3	2,362	0	7,835
North Carolina	918	1	*	1,392	6	*	1	985	0	3,356
North Dakota	64	1	1	88	13	*	5	*	0	234
Northern Mariana Isl	*	0	*	*	0	0	0	*	0	*
Ohio	1,109	8	14	1,776	13	*	20	1,135	*	4,107
Oklahoma	349	1	*	429	5	*	8	362	0	1,182
Oregon	367	8	*	531	68	*	8	413	0	1,419
Pennsylvania	1,233	9	23	1,807	*	*	1	1,261	0	4,682
Puerto Rico	*	*	3	*	*	*	*	190	0	542
Rhode Island	*	1	2	*	*	*	*	110	0	418
South Carolina	412	#	*	583	15	*	1	437	0	1,472
South Dakota	58	2	#	122	9	*	8	*	0	270
Tennessee	549	7	*	755	24	*	2	646	0	2,026
Texas	2,706	8	*	2,019	284	*	34	3,453	0	8,658
Utah	280	4	*	244	13	*	31	269	0	852
Vermont	79	*	2	79	4	*	*	*	0	201
Virgin Islands	*	*	*	0	0	*	*	*	0	33
Virginia	547	2	27	1,112	*	*	8	1,151	*	3,216
Washington	596	5	13	1,110	47	*	11	904	*	2,712
West Virginia	160	*	3	215	#	*	1	126	0	518
Wisconsin	586	17	8	779	6	*	15	436	*	1,874
Wyoming	58	2	*	70	1	*	4	59	0	199
Total	30,617	217	686	41,407	3,543	990	485	35,399	5	113,349

= Rounds to Zero.

* = Data withheld to maintain firm confidentiality.

Figures may not sum to totals due to rounding.

Source: FCC Form 477, Part I.

Table 15
Percentage of Connections by Downstream Speed by State as of June 30, 2009
(Connections over 200 kbps in at least one direction)

State	Over 200 kbps Upstream and				
	% over 200 kbps Downstream	% at least 768 kbps Downstream	% at least 3 mbps Downstream	% at least 6 mbps Downstream	% at least 10 mbps Downstream
Alabama	83.0	74.3	42.0	17.5	4.3
Alaska	81.0	67.1	25.9	12.5	3.3
American Samoa	*	*	*	*	*
Arizona	84.5	73.6	41.3	37.0	11.4
Arkansas	82.0	73.0	29.5	20.1	3.2
California	87.5	78.4	37.3	25.6	5.8
Colorado	87.4	77.8	43.7	39.2	2.0
Connecticut	88.4	80.4	44.8	35.6	19.1
Delaware	84.5	76.6	62.1	51.8	17.7
District of Columbia	66.2	58.1	36.6	21.9	6.1
Florida	86.3	81.5	49.1	38.2	8.8
Georgia	82.4	75.6	41.9	23.1	2.7
Guam	*	*	*	*	*
Hawaii	92.7	86.9	57.5	4.0	1.1
Idaho	81.9	71.2	34.3	8.0	1.1
Illinois	88.4	78.7	40.7	29.2	7.7
Indiana	85.1	75.7	43.0	30.9	13.3
Iowa	87.1	75.6	47.5	31.3	6.9
Kansas	81.7	73.8	38.7	29.1	3.8
Kentucky	87.4	80.7	49.8	31.9	27.3
Louisiana	85.7	80.9	35.8	24.1	11.4
Maine	84.0	78.9	60.2	44.8	5.0
Maryland	80.9	73.6	55.4	40.7	16.1
Massachusetts	83.6	77.9	61.3	45.5	14.4
Michigan	84.7	76.4	45.9	30.3	4.4
Minnesota	85.8	76.5	43.5	30.6	4.3
Mississippi	86.5	71.8	36.7	17.8	0.8
Missouri	85.3	76.0	34.0	15.4	4.9
Montana	72.7	55.0	31.3	27.4	1.1
Nebraska	76.0	68.1	42.7	29.8	3.2

Table 15 - Continued
Percentage of Connections by Downstream Speed by State as of June 30, 2009
 (Connections over 200 kbps in at least one direction)

State	Over 200 kbps Upstream and				
	% over 200 kbps Downstream	% at least 768 kbps Downstream	% at least 3 mbps Downstream	% at least 6 mbps Downstream	% at least 10 mbps Downstream
Nevada	89.0	81.2	40.0	27.0	6.3
New Hampshire	82.6	75.6	64.7	52.0	6.7
New Jersey	82.1	75.4	59.6	50.7	34.7
New Mexico	80.4	67.0	33.7	26.4	1.5
New York	83.6	78.1	59.3	47.4	46.7
North Carolina	78.2	71.4	47.0	31.4	4.3
North Dakota	82.3	70.5	51.5	29.9	27.8
Northern Mariana Isl	*	*	*	*	*
Ohio	79.3	70.1	42.8	31.2	5.2
Oklahoma	89.7	84.3	37.4	25.3	3.1
Oregon	89.1	81.1	49.0	38.7	6.7
Pennsylvania	82.4	74.9	53.8	36.4	11.7
Puerto Rico	94.7	73.3	12.9	0.6	0.0
Rhode Island	87.0	81.2	61.4	51.8	51.2
South Carolina	76.4	68.5	45.4	22.7	4.2
South Dakota	78.0	67.2	53.1	34.0	31.3
Tennessee	81.3	71.4	43.8	26.7	2.7
Texas	86.4	77.0	33.8	20.9	5.6
Utah	88.4	77.9	38.4	32.3	3.5
Vermont	76.8	71.0	60.5	39.0	4.1
Virgin Islands	79.1	46.1	*	*	*
Virginia	81.7	70.7	50.2	37.9	22.5
Washington	87.7	80.0	47.7	41.3	7.4
West Virginia	85.6	76.7	45.8	29.4	2.0
Wisconsin	87.1	78.3	46.2	24.0	6.4
Wyoming	81.3	63.9	40.6	34.4	1.2
Total	84.6	76.4	45.0	31.9	11.5

* = Data withheld to maintain firm confidentiality.
 Source: FCC Form 477, Part I.

Table 16
ADSL Connections by State 2005-2009
(Connections over 200 kbps in at least one direction, in thousands)

State	2005		2006		2007		2008		2009
	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun
Alabama	177	221	269	315	357	403	431	457	473
Alaska	39	43	54	60	64	68	72	75	77
American Samoa	*	*	*	*	*	*	*	*	*
Arizona	153	208	276	365	406	437	454	466	487
Arkansas	127	150	181	200	227	249	267	273	298
California	3,079	3,592	4,002	4,343	4,626	4,780	4,755	4,617	4,587
Colorado	268	333	405	473	530	573	575	624	641
Connecticut	*	*	*	*	*	*	*	*	*
Delaware	*	*	*	*	*	*	*	*	*
District of Columbia	*	*	*	*	*	*	*	*	*
Florida	1,285	1,509	1,723	1,873	1,960	2,046	2,045	2,005	1,962
Georgia	758	890	1,009	1,126	1,219	1,307	1,361	1,240	1,251
Guam	*	*	*	*	*	*	*	*	*
Hawaii	*	*	*	*	*	*	*	*	*
Idaho	63	82	98	113	129	142	154	160	169
Illinois	848	980	1,094	1,212	1,300	1,382	1,419	1,503	1,538
Indiana	305	379	443	515	584	636	651	672	699
Iowa	119	151	189	233	271	298	322	336	352
Kansas	136	160	179	203	225	236	241	243	250
Kentucky	180	213	251	303	340	367	385	421	431
Louisiana	191	207	236	271	306	333	354	385	390
Maine	52	73	90	105	115	118	120	114	123
Maryland	306	379	450	490	512	514	495	471	440
Massachusetts	*	*	*	*	*	*	*	*	*
Michigan	375	463	534	607	690	733	749	780	834
Minnesota	228	276	331	395	449	496	529	544	573
Mississippi	88	106	129	154	180	202	220	229	239
Missouri	342	399	468	546	618	683	712	727	767
Montana	47	57	70	83	96	102	108	108	111
Nebraska	66	81	95	112	124	135	143	151	158

Table 16 - Continued
ADSL Connections by State 2005-2009
(Connections over 200 kbps in at least one direction, in thousands)

State	2005		2006		2007		2008		2009
	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun
Nevada	116	140	168	190	207	220	225	222	225
New Hampshire	54	72	85	94	98	100	97	91	91
New Jersey	444	540	638	704	735	735	700	666	624
New Mexico	82	105	131	157	180	200	217	231	242
New York	737	861	1,003	1,104	1,182	1,184	1,169	1,122	1,100
North Carolina	413	489	561	648	725	820	870	891	918
North Dakota	27	32	39	46	51	56	60	65	64
Northern Mariana Isl	0	*	*	*	*	*	*	*	*
Ohio	556	663	753	859	951	1,024	1,034	1,069	1,109
Oklahoma	189	222	247	277	302	324	334	339	349
Oregon	198	245	280	312	339	356	361	371	367
Pennsylvania	541	692	871	1,013	1,126	1,191	1,209	1,231	1,233
Puerto Rico	*	*	*	*	*	*	*	*	*
Rhode Island	*	*	*	*	*	*	*	*	*
South Carolina	155	206	243	285	323	359	386	400	412
South Dakota	21	26	33	40	46	48	53	56	58
Tennessee	237	294	348	397	447	499	535	541	549
Texas	1,301	1,514	1,733	1,997	2,294	2,464	2,475	2,608	2,706
Utah	130	160	189	222	250	270	284	299	280
Vermont	35	44	51	61	68	72	73	61	79
Virgin Islands	*	*	*	*	*	*	*	*	*
Virginia	309	384	446	505	548	568	561	553	547
Washington	364	427	491	534	569	592	600	599	596
West Virginia	53	69	87	105	124	138	147	152	160
Wisconsin	243	298	360	418	484	528	556	556	586
Wyoming	24	33	39	44	50	53	55	57	58
Total	16,316	19,515	22,584	25,413	27,793	29,449	29,964	30,198	30,617

= Rounds to Zero.

* = Data withheld to maintain firm confidentiality.

Note: Some December 2008 data have been revised. Figures may not sum to totals due to rounding.

Source: FCC Form 477, Part I.

Table 17
Cable Modem Connections by State 2005-2009
(Connections over 200 kbps in at least one direction, in thousands)

State	2005		2006		2007		2008		2009
	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun
Alabama	257	285	311	342	374	399	417	460	482
Alaska	*	*	*	*	*	*	*	*	*
American Samoa	0	0	0	0	0	0	0	0	0
Arizona	584	679	761	838	850	897	992	1,044	1,043
Arkansas	118	137	149	184	205	214	236	248	254
California	2,467	2,735	2,957	3,156	3,411	3,603	3,799	3,990	4,157
Colorado	383	433	476	523	561	604	626	659	703
Connecticut	372	404	441	454	513	550	576	615	627
Delaware	*	*	*	*	*	*	*	*	*
District of Columbia	*	*	*	*	*	*	*	*	*
Florida	1,560	1,758	1,939	2,178	2,344	2,543	2,631	2,825	2,896
Georgia	523	584	650	743	802	862	904	974	1,035
Guam	0	0	0	0	0	*	*	*	*
Hawaii	*	*	*	*	*	*	*	*	*
Idaho	78	74	75	109	116	123	127	121	130
Illinois	842	956	1,042	1,332	1,466	1,570	1,625	1,591	1,597
Indiana	397	445	490	370	410	439	456	626	649
Iowa	187	220	225	234	268	287	309	330	344
Kansas	259	273	317	321	351	369	380	415	419
Kentucky	217	269	306	333	384	435	482	452	483
Louisiana	329	255	379	420	446	485	481	518	546
Maine	116	132	146	152	169	179	197	202	224
Maryland	547	592	637	781	829	865	871	801	782
Massachusetts	826	886	955	1,044	1,088	1,136	1,159	1,291	1,253
Michigan	892	954	1,019	1,103	1,197	1,265	1,307	1,394	1,460
Minnesota	441	494	517	541	571	608	622	666	687
Mississippi	96	104	114	136	152	166	188	216	230
Missouri	323	353	401	444	473	498	517	560	562
Montana	36	45	54	65	74	83	90	92	102
Nebraska	177	201	218	239	238	252	262	278	286

Table 17 - Continued
Cable Modem Connections by State 2005-2009
(Connections over 200 kbps in at least one direction, in thousands)

State	2005		2006		2007		2008		2009
	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec	Jun
Nevada	*	*	*	*	*	*	*	*	*
New Hampshire	176	188	202	210	230	240	250	285	294
New Jersey	1,108	1,205	1,312	1,386	1,474	1,538	1,586	1,637	1,631
New Mexico	78	89	100	109	117	127	137	146	159
New York	2,216	2,445	2,765	2,967	3,164	3,342	3,548	3,749	3,851
North Carolina	762	862	964	1,041	1,134	1,196	1,266	1,344	1,392
North Dakota	51	55	58	71	76	80	83	85	88
Northern Mariana Isl	0	0	0	0	0	*	*	*	*
Ohio	961	1,065	1,185	1,303	1,406	1,498	1,627	1,705	1,776
Oklahoma	234	262	284	313	348	373	382	408	429
Oregon	336	375	407	453	490	531	554	517	531
Pennsylvania	962	1,075	1,164	1,256	1,271	1,399	1,492	1,800	1,807
Puerto Rico	*	*	*	*	*	*	*	*	*
Rhode Island	*	*	*	*	*	*	*	*	*
South Carolina	290	326	368	418	459	496	517	555	583
South Dakota	84	89	93	100	101	111	115	122	122
Tennessee	422	460	506	602	663	703	715	718	755
Texas	1,468	1,618	1,692	1,944	2,082	2,183	2,214	1,971	2,019
Utah	*	*	*	*	*	*	212	*	244
Vermont	*	*	*	*	*	*	*	71	79
Virgin Islands	0	0	0	0	0	0	0	0	0
Virginia	749	817	893	877	906	921	941	1,096	1,112
Washington	585	660	726	806	862	909	944	998	1,110
West Virginia	118	128	145	145	156	159	167	205	215
Wisconsin	447	497	543	592	637	676	711	759	779
Wyoming	*	*	*	*	*	*	*	64	70
Total	24,017	26,558	29,173	31,982	34,404	36,507	38,190	40,207	41,407

= Rounds to Zero.

* = Data withheld to maintain firm confidentiality.

Note: Some December 2008 data have been revised. Figures may not sum to totals due to rounding.

Source: FCC Form 477, Part I.

Table 18
Connections by Type of End User by State as of June 30, 2009
(Connections over 200 kbps in at least one direction, in thousands)

State	Connections		Percentages		Total
	Residential	Business	Residential	Business	
Alabama	1,172	226	83.8	16.2	1,398
Alaska	226	51	81.5	18.5	277
American Samoa	*	*	*	*	*
Arizona	1,948	366	84.2	15.8	2,314
Arkansas	691	158	81.3	18.7	849
California	11,626	2,566	81.9	18.1	14,191
Colorado	1,687	358	82.5	17.5	2,045
Connecticut	1,275	263	82.9	17.1	1,539
Delaware	311	58	84.3	15.7	368
District of Columbia	255	166	60.6	39.4	421
Florida	6,147	1,221	83.4	16.6	7,368
Georgia	2,874	610	82.5	17.5	3,484
Guam	19	11	64.2	35.8	30
Hawaii	466	99	82.4	17.6	565
Idaho	426	80	84.3	15.7	505
Illinois	3,917	827	82.6	17.4	4,744
Indiana	1,685	336	83.4	16.6	2,021
Iowa	847	140	85.8	14.2	987
Kansas	864	167	83.8	16.2	1,031
Kentucky	1,029	191	84.3	15.7	1,221
Louisiana	1,256	295	81.0	19.0	1,551
Maine	370	59	86.3	13.7	429
Maryland	2,044	430	82.6	17.4	2,474
Massachusetts	2,359	440	84.3	15.7	2,799
Michigan	2,710	530	83.6	16.4	3,240
Minnesota	1,545	305	83.5	16.5	1,850
Mississippi	622	115	84.4	15.6	737
Missouri	1,603	358	81.7	18.3	1,961
Montana	305	54	84.9	15.1	359
Nebraska	560	106	84.1	15.9	667
Nevada	859	175	83.1	16.9	1,034
New Hampshire	455	76	85.7	14.3	531
New Jersey	3,275	639	83.7	16.3	3,914
New Mexico	539	94	85.2	14.8	633
New York	6,644	1,191	84.8	15.2	7,835
North Carolina	2,827	529	84.2	15.8	3,356
North Dakota	198	35	84.9	15.1	234
Northern Mariana Isl	*	*	*	*	*
Ohio	3,452	655	84.0	16.0	4,107
Oklahoma	961	221	81.3	18.7	1,182
Oregon	1,188	231	83.7	16.3	1,419
Pennsylvania	3,935	748	84.0	16.0	4,682
Puerto Rico	461	81	85.1	14.9	542
Rhode Island	346	71	83.0	17.0	418
South Carolina	1,250	222	84.9	15.1	1,472
South Dakota	231	39	85.5	14.5	270
Tennessee	1,667	359	82.3	17.7	2,026
Texas	6,869	1,789	79.3	20.7	8,658
Utah	682	169	80.1	19.9	852
Vermont	173	28	86.0	14.0	201
Virgin Islands	27	6	80.5	19.5	33
Virginia	2,624	592	81.6	18.4	3,216
Washington	2,202	510	81.2	18.8	2,712
West Virginia	442	77	85.2	14.8	518
Wisconsin	1,603	272	85.5	14.5	1,874
Wyoming	169	30	84.9	15.1	199
Total	93,920	19,429	82.9	17.1	113,349

= Rounds to Zero.

* = Data withheld to maintain firm confidentiality.

Figures may not sum to totals due to rounding.

Source: FCC Form 477, Part I and VI.

Table 19
Percentage of Residential End-User Premises with Access to Services
over 200 kbps in at Least One Direction by State

<i>State</i>	<i>xDSL Availability Where ILECs Offer Local Telephone Service</i>	<i>Cable Modem Availability Where Cable Systems Offer Cable TV Service</i>
Alabama	79	93
Alaska	78	*
American Samoa	*	0
Arizona	86	98
Arkansas	79	72
California	90	99
Colorado	87	97
Connecticut	*	100
Delaware	*	*
District of Columbia	*	*
Florida	90	98
Georgia	94	92
Guam	*	*
Hawaii	*	*
Idaho	82	98
Illinois	87	97
Indiana	82	93
Iowa	87	93
Kansas	86	96
Kentucky	87	93
Louisiana	84	94
Maine	73	95
Maryland	75	97
Massachusetts	*	100
Michigan	75	94
Minnesota	89	97
Mississippi	77	91
Missouri	82	95
Montana	80	82
Nebraska	88	96
Nevada	91	*
New Hampshire	66	98
New Jersey	86	100
New Mexico	88	81
New York	79	99
North Carolina	89	95
North Dakota	88	93
Northern Mariana Isl	*	*
Ohio	86	98
Oklahoma	81	92
Oregon	84	97
Pennsylvania	87	98
Puerto Rico	*	*
Rhode Island	*	*
South Carolina	85	95
South Dakota	82	88
Tennessee	84	98
Texas	82	96
Utah	91	90
Vermont	81	71
Virgin Islands	*	0
Virginia	67	98
Washington	83	97
West Virginia	67	90
Wisconsin	83	97
Wyoming	80	85
Total	85	96

* = Data withheld to maintain firm confidentiality.

Note: This table summarizes responses to Form 477 questions about service availability, as opposed to subscribership. xDSL includes both asymmetric and symmetric DSL. Each state-specific estimate is a weighted average of the availability percentages that ILECs or cable system operators report for the areas they serve. Reported xDSL availability is weighted by ILEC end-user switched access lines and VoIP lines. Reported cable modem availability is weighted by cable TV subscribers. The weighted averages include ILECs or cable system operators that report no availability. Figures are presented to the nearest percent.

Source: FCC Form 477, Parts I and II; Warren Communications News, Inc., Television & Cable Factbook: Online (Cable General Information, February 2010).

Table 20
Providers of Connections by Technology by State as of June 30, 2009
(Connections over 200 kbps in at least one direction)

<i>State</i>	<i>ADSL</i>	<i>SDSL</i>	<i>Other Wireline</i>	<i>Cable Modem</i>	<i>Fiber</i>	<i>Satellite</i>	<i>Fixed Wireless</i>	<i>Mobile Wireless</i>	<i>Power Line and Other</i>	<i>Total</i>
Alabama	28	11	24	21	18	*	13	5	*	80
Alaska	12	5	5	4	6	*	7	6	0	21
American Samoa	*	*	0	0	0	0	*	0	0	*
Arizona	23	8	28	11	21	*	18	6	*	72
Arkansas	21	7	15	15	8	*	8	5	0	57
California	31	18	41	19	23	*	26	7	0	104
Colorado	36	13	35	15	22	*	27	10	0	89
Connecticut	10	8	24	6	12	*	*	4	0	40
Delaware	8	7	21	*	7	*	0	5	0	33
District of Columbia	11	9	28	*	11	*	*	4	0	41
Florida	27	16	55	19	33	*	16	5	0	100
Georgia	39	15	37	33	37	*	10	7	0	109
Guam	*	*	*	*	0	0	0	*	0	5
Hawaii	*	*	6	*	7	*	*	6	0	17
Idaho	26	7	18	9	17	*	14	7	0	59
Illinois	57	24	45	20	19	*	52	8	0	140
Indiana	37	14	31	14	29	*	36	6	*	100
Iowa	127	39	26	40	51	*	61	9	0	197
Kansas	39	14	22	28	29	*	28	10	0	92
Kentucky	26	10	23	23	16	*	16	8	0	86
Louisiana	20	9	21	15	14	*	7	4	0	58
Maine	12	11	14	6	9	*	*	4	0	33
Maryland	14	11	29	11	10	*	8	6	0	58
Massachusetts	14	12	30	8	12	*	6	4	0	51
Michigan	43	21	41	14	19	*	25	9	*	100
Minnesota	61	22	25	18	40	*	25	5	0	104
Mississippi	20	7	20	15	7	*	4	6	0	55
Missouri	40	16	26	21	19	*	34	7	*	103
Montana	24	10	16	4	9	*	14	*	0	45
Nebraska	35	8	16	19	17	*	24	6	0	72

Table 20 - Continued
Providers of Connections by Technology by State as of June 30, 2009
(Connections over 200 kbps in at least one direction)

<i>State</i>	<i>ADSL</i>	<i>SDSL</i>	<i>Other Wireline</i>	<i>Cable Modem</i>	<i>Fiber</i>	<i>Satellite</i>	<i>Fixed Wireless</i>	<i>Mobile Wireless</i>	<i>Power Line and Other</i>	<i>Total</i>
Nevada	19	10	22	5	13	*	8	6	0	51
New Hampshire	14	9	18	5	11	*	4	4	0	40
New Jersey	17	15	44	6	13	*	*	5	0	59
New Mexico	22	7	15	8	11	*	14	8	0	49
New York	44	20	48	20	24	*	14	6	0	101
North Carolina	30	13	33	19	21	*	10	8	0	81
North Dakota	26	11	12	7	13	*	12	*	0	42
Northern Mariana Isl	*	0	*	*	0	0	0	*	0	*
Ohio	41	21	36	24	28	*	19	7	*	102
Oklahoma	42	9	27	13	13	*	16	11	0	85
Oregon	44	15	27	16	27	*	14	6	0	83
Pennsylvania	37	16	42	24	23	*	14	6	0	94
Puerto Rico	*	*	7	*	*	*	*	5	0	14
Rhode Island	7	6	14	*	7	*	*	4	0	26
South Carolina	24	7	26	16	13	*	6	5	0	56
South Dakota	28	9	16	8	16	*	15	*	0	52
Tennessee	26	12	29	17	16	*	10	8	0	81
Texas	68	25	58	29	38	*	52	10	0	165
Utah	16	11	18	5	16	*	11	7	0	49
Vermont	11	5	17	4	5	*	*	*	0	34
Virgin Islands	*	*	*	0	0	*	*	*	0	8
Virginia	28	16	38	16	22	*	14	6	*	82
Washington	31	12	30	17	26	*	25	7	*	85
West Virginia	10	*	15	10	8	*	6	5	0	38
Wisconsin	48	15	26	15	18	*	21	9	*	92
Wyoming	11	7	10	4	4	*	8	6	0	33
Total	873	256	283	350	460	4	615	48	6	1,543

* Indicates one to three providers.

Source: FCC Form 477, Part I.

Table 21
Residential Fixed Connections and Households by State as of June 30, 2009
(Connections over 200 kbps in at least one direction and households, in thousands)

<i>State</i>	<i>Connections</i>	<i>Households</i>	<i>Subscribership Ratio</i>
Alabama	901	1,821	0.49
Alaska	162	248	0.65
American Samoa	*	9	*
Arizona	1,457	2,436	0.60
Arkansas	516	1,119	0.46
California	8,547	12,646	0.68
Colorado	1,297	1,886	0.69
Connecticut	1,003	1,362	0.74
Delaware	240	337	0.71
District of Columbia	175	263	0.67
Florida	4,783	7,436	0.64
Georgia	2,144	3,628	0.59
Guam	*	39	*
Hawaii	*	450	*
Idaho	300	562	0.53
Illinois	2,988	4,775	0.63
Indiana	1,356	2,457	0.55
Iowa	684	1,180	0.58
Kansas	659	1,077	0.61
Kentucky	876	1,687	0.52
Louisiana	888	1,609	0.55
Maine	330	540	0.61
Maryland	1,512	2,140	0.71
Massachusetts	1,868	2,493	0.75
Michigan	2,188	3,869	0.57
Minnesota	1,230	2,011	0.61
Mississippi	447	1,076	0.41
Missouri	1,269	2,323	0.55
Montana	212	385	0.55
Nebraska	425	698	0.61
Nevada	608	1,015	0.60
New Hampshire	378	514	0.73
New Jersey	2,456	3,202	0.77
New Mexico	389	748	0.52
New York	5,080	7,297	0.70
North Carolina	2,172	3,617	0.60
North Dakota	155	255	0.61
Northern Mariana Isl	*	14	*
Ohio	2,754	4,495	0.61
Oklahoma	731	1,423	0.51
Oregon	917	1,489	0.62
Pennsylvania	3,194	4,831	0.66
Puerto Rico	315	1,262	0.25
Rhode Island	282	418	0.67
South Carolina	944	1,721	0.55
South Dakota	179	310	0.58
Tennessee	1,248	2,455	0.51
Texas	4,728	8,730	0.54
Utah	528	858	0.62
Vermont	153	247	0.62
Virgin Islands	10	41	0.26
Virginia	1,904	3,003	0.63
Washington	1,670	2,533	0.66
West Virginia	359	737	0.49
Wisconsin	1,317	2,200	0.60
Wyoming	122	206	0.59
Total	71,391	116,181	0.61

= Rounds to Zero; * = Data withheld to maintain firm confidentiality.

Note: Figures may not sum to totals due to rounding.

Sources: FCC Form 477, Part VI (Connections); Geolytics 2009 Block-Level Estimates (Households for U.S. and District of Columbia); Census 2000 (Households for Puerto Rico, American Samoa, Guam, Northern Mariana Islands and U.S. Virgin Islands).

Table 22
Residential Fixed Connections (BTOP/BIP Definition) and Households by State as of June 30, 2009
(Connections and households, in thousands)

<i>State</i>	<i>Connections</i>	<i>Households</i>	<i>Subscribership Ratio</i>
Alabama	786	1,821	0.43
Alaska	105	248	0.42
American Samoa	0	9	0.00
Arizona	1,386	2,436	0.57
Arkansas	427	1,119	0.38
California	7,802	12,646	0.62
Colorado	1,232	1,886	0.65
Connecticut	965	1,362	0.71
Delaware	225	337	0.67
District of Columbia	156	263	0.59
Florida	4,444	7,436	0.60
Georgia	1,958	3,628	0.54
Guam	*	39	*
Hawaii	*	450	*
Idaho	272	562	0.48
Illinois	2,744	4,775	0.57
Indiana	1,221	2,457	0.50
Iowa	596	1,180	0.51
Kansas	594	1,077	0.55
Kentucky	766	1,687	0.45
Louisiana	814	1,609	0.51
Maine	279	540	0.52
Maryland	1,375	2,140	0.64
Massachusetts	1,730	2,493	0.69
Michigan	2,026	3,869	0.52
Minnesota	1,124	2,011	0.56
Mississippi	386	1,076	0.36
Missouri	1,089	2,323	0.47
Montana	173	385	0.45
Nebraska	389	698	0.56
Nevada	589	1,015	0.58
New Hampshire	345	514	0.67
New Jersey	2,296	3,202	0.72
New Mexico	353	748	0.47
New York	4,707	7,297	0.65
North Carolina	1,925	3,617	0.53
North Dakota	146	255	0.57
Northern Mariana Isl	*	14	*
Ohio	2,368	4,495	0.53
Oklahoma	666	1,423	0.47
Oregon	853	1,489	0.57
Pennsylvania	2,789	4,831	0.58
Puerto Rico	198	1,262	0.16
Rhode Island	*	418	*
South Carolina	833	1,721	0.48
South Dakota	161	310	0.52
Tennessee	1,105	2,455	0.45
Texas	4,277	8,730	0.49
Utah	498	858	0.58
Vermont	127	247	0.51
Virgin Islands	*	41	*
Virginia	1,761	3,003	0.59
Washington	1,547	2,533	0.61
West Virginia	316	737	0.43
Wisconsin	1,181	2,200	0.54
Wyoming	110	206	0.53
Total	64,810	116,181	0.56

= Rounds to Zero; * = Data withheld to maintain firm confidentiality.

Note: The BTOP/BIP definition is advertised speeds of at least 768 kbps downstream and 200 kbps upstream to end users.

See also p.2 of the report text. Figures may not sum to totals due to rounding.

Sources: FCC Form 477, Part VI (Connections); Geolytics 2009 Block-Level Estimates (Households for U.S. and District of Columbia);

Census 2000 (Households for Puerto Rico, American Samoa, Guam, Northern Mariana Islands and U.S. Virgin Islands).

Table 23
Residential Fixed Connections (Approximating the National Broadband Availability Target)
and Households by State as of June 30, 2009

(Connections with advertised speeds at least 3 mbps down and 768 up and households, in thousands)

<i>State</i>	<i>Connections</i>	<i>Households</i>	<i>Subscribership Ratio</i>
Alabama	164	1,821	0.09
Alaska	*	248	*
American Samoa	0	9	0.00
Arizona	834	2,436	0.34
Arkansas	115	1,119	0.10
California	2,968	12,646	0.23
Colorado	761	1,886	0.40
Connecticut	535	1,362	0.39
Delaware	199	337	0.59
District of Columbia	130	263	0.49
Florida	1,923	7,436	0.26
Georgia	731	3,628	0.20
Guam	*	39	*
Hawaii	*	450	*
Idaho	49	562	0.09
Illinois	1,323	4,775	0.28
Indiana	652	2,457	0.27
Iowa	123	1,180	0.10
Kansas	216	1,077	0.20
Kentucky	384	1,687	0.23
Louisiana	305	1,609	0.19
Maine	72	540	0.13
Maryland	1,238	2,140	0.58
Massachusetts	1,464	2,493	0.59
Michigan	937	3,869	0.24
Minnesota	501	2,011	0.25
Mississippi	*	1,076	*
Missouri	176	2,323	0.08
Montana	95	385	0.25
Nebraska	149	698	0.21
Nevada	283	1,015	0.28
New Hampshire	249	514	0.48
New Jersey	2,128	3,202	0.66
New Mexico	150	748	0.20
New York	3,080	7,297	0.42
North Carolina	137	3,617	0.04
North Dakota	69	255	0.27
Northern Mariana Isl	0	14	0.00
Ohio	505	4,495	0.11
Oklahoma	263	1,423	0.18
Oregon	544	1,489	0.37
Pennsylvania	2,058	4,831	0.43
Puerto Rico	*	1,262	*
Rhode Island	*	418	*
South Carolina	145	1,721	0.08
South Dakota	18	310	0.06
Tennessee	493	2,455	0.20
Texas	1,197	8,730	0.14
Utah	271	858	0.32
Vermont	100	247	0.41
Virgin Islands	0	41	0.00
Virginia	1,449	3,003	0.48
Washington	1,098	2,533	0.43
West Virginia	130	737	0.18
Wisconsin	172	2,200	0.08
Wyoming	69	206	0.33
Total	31,308	116,181	0.27

= Rounds to Zero; * = Data withheld to maintain firm confidentiality.

Note: Figures may not sum to totals due to rounding.

Sources: FCC Form 477, Part VI (Connections); Geolytics 2009 Block-Level Estimates (Households for U.S. and District of Columbia); Census 2000 (Households for Puerto Rico, American Samoa, Guam, Northern Mariana Islands and U.S. Virgin Islands).

Table 24
Distribution of Counties by Ratio of Residential Fixed Connections to County Households by State as of June 30, 2009
(Connections over 200 kbps in at least one direction)

Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to County Households												
State	Counties	Zero	Greater than 0 and no more than 5%	Greater than 5 and no more than 10%	Greater than 10 and no more than 20%	Greater than 20 and no more than 30%	Greater than 30 and no more than 40%	Greater than 40 and no more than 50%	Greater than 50 and no more than 60%	Greater than 60 and no more than 80%	Greater than 80 and no more than 100%	100% or more
Alabama	67	0	0	0	4	15	20	13	10	5	0	0
Alaska	27	0	0	1	4	2	3	3	8	6	0	0
American Samoa	5	3	0	1	1	0	0	0	0	0	0	0
Arizona	15	0	0	0	0	1	1	4	4	5	0	0
Arkansas	75	0	0	0	1	21	29	13	9	2	0	0
California	58	0	0	1	0	0	11	4	20	22	0	0
Colorado	64	0	0	0	0	6	11	11	12	16	6	2
Connecticut	8	0	0	0	0	0	0	0	0	8	0	0
Delaware	3	0	0	0	0	0	0	0	0	3	0	0
District of Columbia	1	0	0	0	0	0	0	0	0	1	0	0
Florida	67	0	0	0	0	4	14	8	8	31	2	0
Georgia	159	0	0	1	6	14	37	40	28	31	2	0
Guam	1	0	0	0	0	0	0	1	0	0	0	0
Hawaii	5	0	1	0	0	0	0	0	1	1	2	0
Idaho	44	0	0	1	2	2	8	14	9	7	1	0
Illinois	102	0	1	2	1	8	15	27	27	18	2	1
Indiana	92	0	0	0	0	5	25	35	15	12	0	0
Iowa	99	0	0	0	0	0	6	36	46	11	0	0
Kansas	105	0	0	0	0	2	10	37	36	18	1	1
Kentucky	120	0	0	0	6	11	41	33	15	14	0	0
Louisiana	64	0	0	0	1	13	14	8	16	10	1	1
Maine	16	0	0	0	0	1	1	3	6	5	0	0
Maryland	24	0	0	0	0	1	1	5	4	9	4	0
Massachusetts	14	0	0	0	0	0	0	0	0	9	2	3
Michigan	83	0	0	0	5	6	20	23	17	12	0	0
Minnesota	87	0	0	0	0	2	8	31	29	16	1	0
Mississippi	82	0	0	1	15	31	19	7	3	6	0	0
Missouri	115	0	0	1	3	18	43	26	15	8	1	0
Montana	56	0	0	0	1	0	18	17	13	7	0	0
Nebraska	93	0	0	0	0	2	23	29	30	8	1	0

Table 24 - Continued
Distribution of Counties by Ratio of Residential Fixed Connections to County Households by State as of June 30, 2009
(Connections over 200 kbps in at least one direction)

Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to County Households												
State	Counties	Zero	Greater than 0 and no more than 5%	Greater than 5 and no more than 10%	Greater than 10 and no more than 20%	Greater than 20 and no more than 30%	Greater than 30 and no more than 40%	Greater than 40 and no more than 50%	Greater than 50 and no more than 60%	Greater than 60 and no more than 80%	Greater than 80 and no more than 100%	100% or more
Nevada	17	0	0	0	0	4	6	1	2	4	0	0
New Hampshire	10	0	0	0	0	0	0	1	2	5	2	0
New Jersey	21	0	0	0	0	0	0	1	2	9	8	1
New Mexico	33	0	0	0	0	8	9	6	4	6	0	0
New York	62	0	0	0	0	0	0	4	19	30	7	2
North Carolina	100	0	0	0	0	6	20	26	26	18	3	1
North Dakota	53	0	0	0	1	1	8	14	14	15	0	0
Northern Mariana Isl	4	1	0	0	3	0	0	0	0	0	0	0
Ohio	88	0	0	0	0	4	9	25	22	28	0	0
Oklahoma	77	0	0	0	3	17	20	21	10	6	0	0
Oregon	36	0	0	0	0	1	5	14	7	9	0	0
Pennsylvania	67	0	0	0	0	0	6	7	22	25	6	1
Puerto Rico	78	0	1	9	33	17	14	1	3	0	0	0
Rhode Island	5	0	0	0	0	0	0	0	1	2	2	0
South Carolina	46	0	0	0	1	11	6	13	9	5	1	0
South Dakota	66	0	0	0	2	3	16	24	12	9	0	0
Tennessee	95	0	0	1	4	14	40	15	13	8	0	0
Texas	254	0	1	1	9	44	80	65	37	13	4	0
Utah	29	0	0	0	1	4	0	3	10	10	1	0
Vermont	14	0	0	0	0	1	1	4	1	7	0	0
Virgin Islands	3	0	0	0	0	3	0	0	0	0	0	0
Virginia	134	0	0	2	15	20	23	23	20	22	9	0
Washington	39	0	0	0	0	5	4	6	10	14	0	0
West Virginia	55	0	0	1	1	7	14	17	10	5	0	0
Wisconsin	72	0	0	0	0	2	7	24	24	15	0	0
Wyoming	23	0	0	0	0	0	2	5	9	7	0	0
Total	3,232	4	4	23	123	337	668	748	670	573	69	13

Note: Figures may not sum to totals due to rounding. See Technical Notes at the end of the report.

Sources: FCC Form 477, Part VI (Connections); Geolytics 2009 Block-Level Estimates (Households for U.S. and District of Columbia); Census 2000 (Households for Puerto Rico, American Samoa, Guam, Northern Mariana Islands and U.S. Virgin Islands).

Table 25
Distribution of Census Tracts by Ratio of Residential Fixed Connections to Tract Households by State as of June 30, 2009
(Connections over 200 kbps in at least one direction)

State	Tracts	Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to Tract Households										
		Zero	Greater than 0 and no more than 5%	Greater than 5 and no more than 10%	Greater than 10 and no more than 20%	Greater than 20 and no more than 30%	Greater than 30 and no more than 40%	Greater than 40 and no more than 50%	Greater than 50 and no more than 60%	Greater than 60 and no more than 80%	Greater than 80 and no more than 100%	100% or more
Alabama	1,081	3	6	25	103	210	187	157	104	159	64	63
Alaska	158	1	2	5	10	7	11	15	18	49	30	10
American Samoa	21	9	9	1	0	0	1	0	0	1	0	0
Arizona	1,107	18	14	27	68	114	115	139	151	234	108	119
Arkansas	624	2	25	31	77	111	106	80	64	64	34	30
California	7,049	41	23	38	224	375	666	781	870	1,845	1,254	932
Colorado	1,075	12	4	8	20	61	109	146	133	267	159	156
Connecticut	815	3	0	1	7	24	36	56	83	259	274	72
Delaware	197	1	0	2	8	17	20	25	23	27	32	42
District of Columbia	188	6	1	1	3	6	13	19	29	52	38	20
Florida	3,153	9	4	7	64	217	373	459	449	746	402	423
Georgia	1,618	7	9	10	78	198	248	261	240	282	145	140
Guam	56	12	1	0	7	8	6	5	5	5	0	7
Hawaii	286	8	1	0	1	10	6	22	50	112	43	33
Idaho	280	1	1	8	10	28	58	53	39	44	18	20
Illinois	2,964	20	16	17	65	247	362	435	439	749	388	226
Indiana	1,412	3	6	7	46	148	248	285	252	240	112	65
Iowa	793	2	1	0	6	32	108	189	195	193	42	25
Kansas	727	7	2	0	11	45	107	141	127	155	75	57
Kentucky	994	3	4	11	55	117	179	191	153	172	66	43
Louisiana	1,106	6	5	5	46	156	149	176	144	246	113	60
Maine	344	0	1	3	14	17	21	40	83	105	47	13
Maryland	1,216	8	1	8	58	86	90	118	128	281	211	227
Massachusetts	1,361	5	0	1	38	104	93	110	95	314	367	234
Michigan	2,716	15	12	26	163	258	318	369	410	642	353	150
Minnesota	1,300	7	0	4	14	77	139	217	259	336	153	94
Mississippi	605	0	5	16	98	137	105	82	45	63	30	24
Missouri	1,320	10	23	20	97	158	211	207	180	197	134	83
Montana	270	7	9	3	10	33	39	46	47	47	19	10
Nebraska	503	4	0	0	6	27	83	103	94	110	36	40

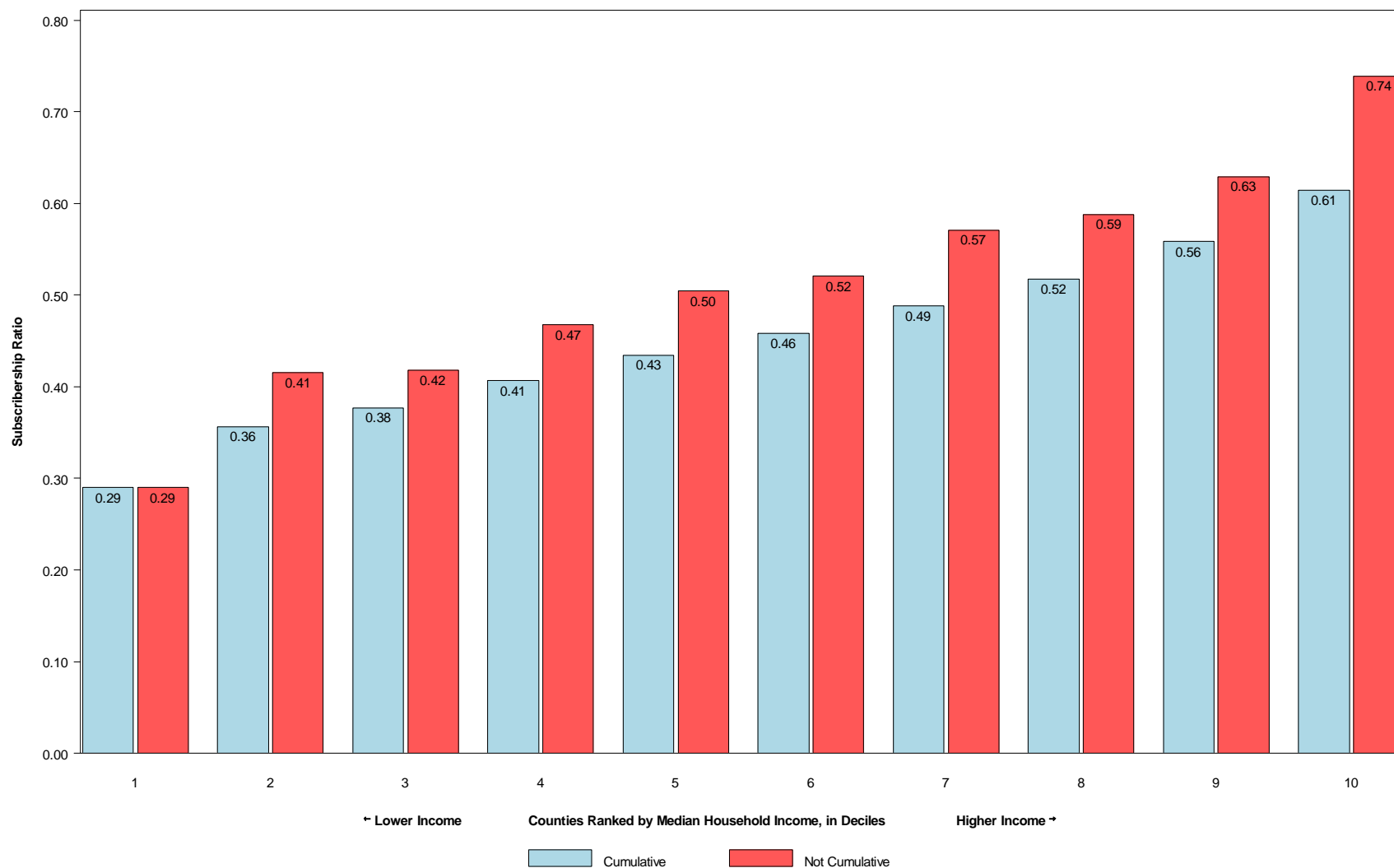
Table 25 - Continued
Distribution of Census Tracts by Ratio of Residential Fixed Connections to Tract Households by State as of June 30, 2009
(Connections over 200 kbps in at least one direction)

Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to Tract Households												
State	Tracts	Zero	Greater than 0 and no more than 5%	Greater than 5 and no more than 10%	Greater than 10 and no more than 20%	Greater than 20 and no more than 30%	Greater than 30 and no more than 40%	Greater than 40 and no more than 50%	Greater than 50 and no more than 60%	Greater than 60 and no more than 80%	Greater than 80 and no more than 100%	100% or more
Nevada	487	10	4	11	33	48	78	55	60	85	48	55
New Hampshire	272	0	0	0	4	1	6	27	33	99	73	29
New Jersey	1,944	14	0	7	45	97	141	167	161	411	463	438
New Mexico	456	21	9	15	29	51	73	69	47	76	37	29
New York	4,898	102	8	8	62	174	529	785	713	990	759	768
North Carolina	1,555	2	1	9	55	154	246	247	244	289	170	138
North Dakota	227	6	0	2	4	18	23	49	40	58	17	10
Northern Mariana Isl	21	3	14	1	2	0	0	0	0	0	0	1
Ohio	2,934	14	2	10	79	258	339	438	488	787	357	162
Oklahoma	990	5	16	15	80	109	177	155	121	166	92	54
Oregon	755	1	1	4	7	40	73	129	147	205	101	47
Pennsylvania	3,134	24	25	9	178	275	282	314	383	679	524	441
Puerto Rico	823	147	93	99	220	96	51	32	26	17	17	25
Rhode Island	233	0	0	0	9	19	22	28	20	45	53	37
South Carolina	867	5	2	15	60	133	160	112	102	131	67	80
South Dakota	235	15	6	1	10	26	31	48	29	41	18	10
Tennessee	1,261	8	5	24	94	202	239	203	139	182	92	73
Texas	4,388	22	60	104	420	659	724	596	423	651	350	379
Utah	496	8	5	3	10	24	42	79	93	121	62	49
Vermont	179	0	0	0	5	4	19	21	39	60	21	10
Virgin Islands	32	0	5	4	4	4	6	2	2	5	0	0
Virginia	1,530	6	11	28	89	126	153	200	187	305	239	186
Washington	1,318	2	4	15	35	48	108	161	203	383	218	141
West Virginia	466	0	7	13	37	53	78	78	72	86	35	7
Wisconsin	1,320	7	3	13	55	105	160	197	210	351	133	86
Wyoming	127	1	0	1	3	5	12	15	33	41	12	4
Total	66,287	653	466	696	3,036	5,757	7,979	9,134	8,924	14,260	8,705	6,677

Note: Figures may not sum to totals due to rounding. See Technical Notes at the end of the report.

Sources: FCC Form 477, Part VI (Connections); Geolytics 2009 Block-Level Estimates (Households for U.S. and District of Columbia); Census 2000 (Households for Puerto Rico, American Samoa, Guam, Northern Mariana Islands and U.S. Virgin Islands).

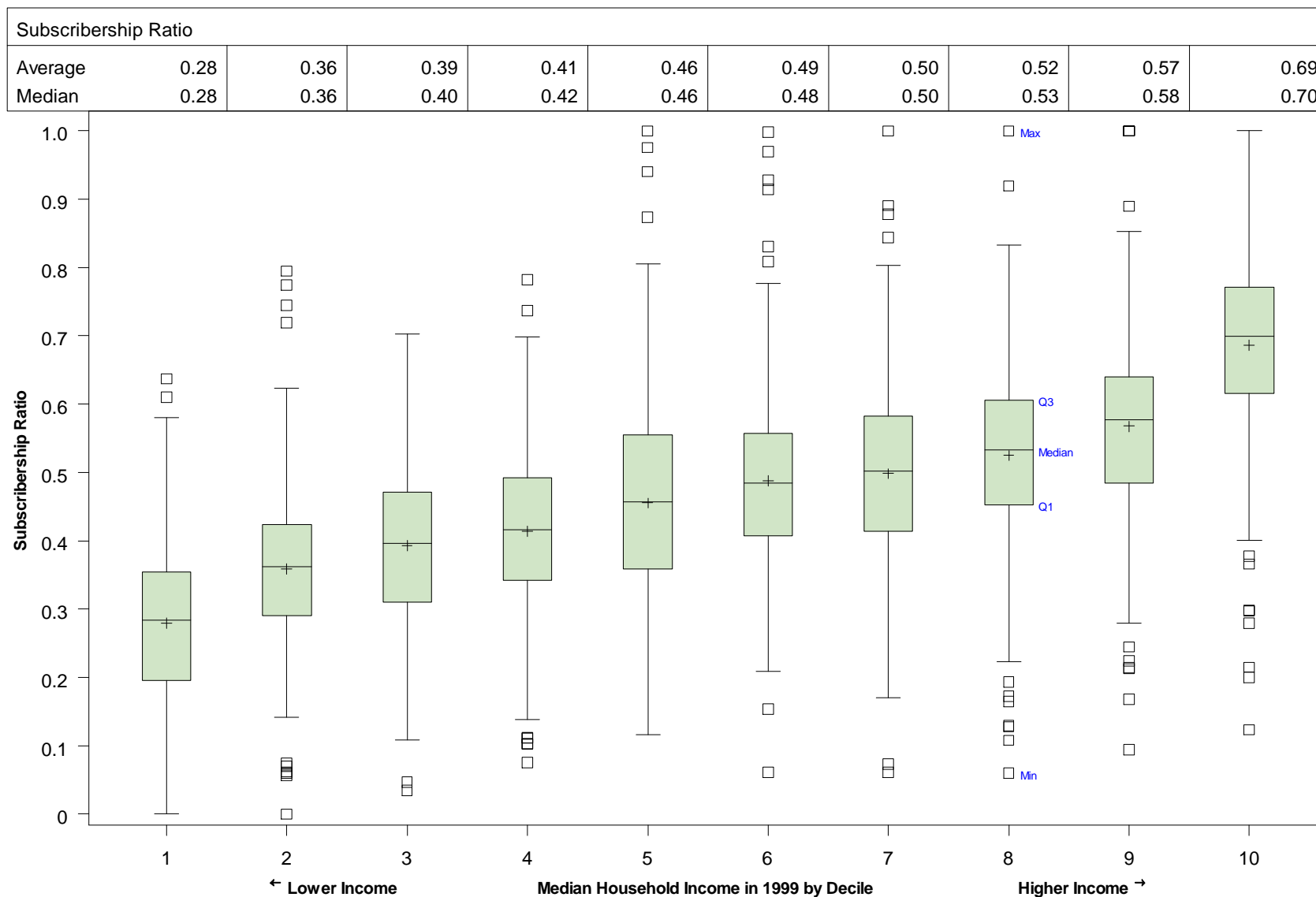
Chart 18
Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to Households
by Income Decile as of June 30, 2009
(County Data)



This chart shows cumulative and non-cumulative subscribership ratios by income deciles. Counties were grouped into income deciles based on county median household income in 1999, as reported by the Census Bureau. For each decile, the height of any red, non-cumulative bar represents the ratio of the sum of residential fixed connections over 200 kbps in at least one direction across counties in the decile to the sum of households across counties in the decile. The height of the blue, cumulative bar for decile N represents the ratio of the sum of residential fixed connections over 200 kbps in at least one direction across all counties in decile N and all deciles less than N to the number of households in all the counties in decile N and deciles less than N.

Sources: FCC Form 477, Part VI; Geolytics 2009 Block-Level Estimates (Households in 2009); and Census 2000 (Median household income in 1999).

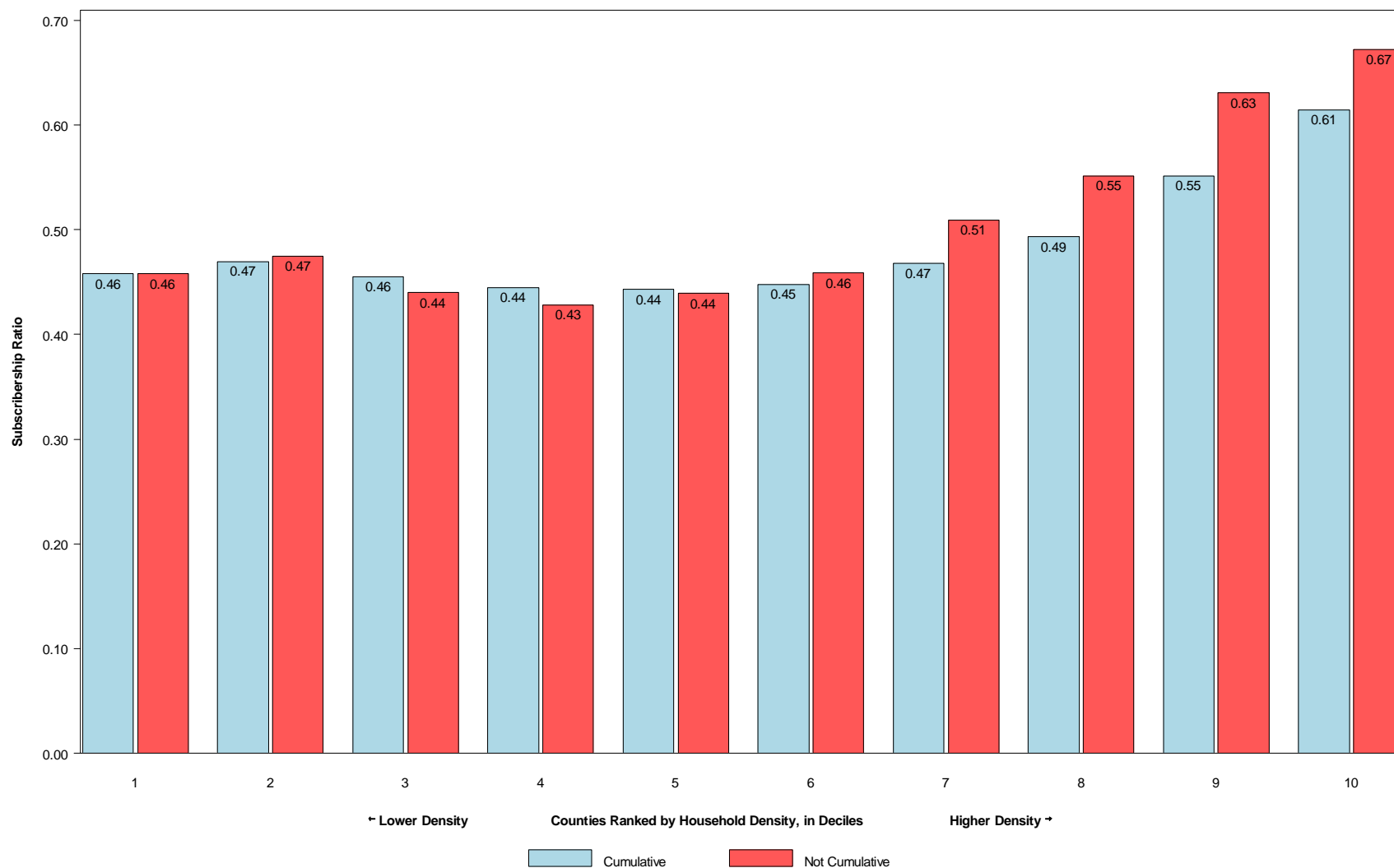
Chart 19
Subscribership Ratio Distributions by Income Deciles as of June 30, 2009



Note: Each box plot shows the distribution of residential subscribership to connections over 200 kbps in at least one direction for counties in the income decile. Some of the features are labeled, but note also that + denotes the position of the average residential subscribership ratio taken across all counties in the decile; ⊥ is the minimum observation above $Q1-1.5(Q3-Q1)$; T is the maximum observation below $Q3+1.5(Q3-Q1)$; and □ is any data point beyond $Q1-1.5(Q3-Q1)$ or $Q3+1.5(Q3-Q1)$. Ratios greater than 1 were set to 1.

Sources: FCC Form 477, Part VI; Geolytics 2009 Block-Level Estimates (Households in 2009); and Census 2000 (Median household income in 1999).

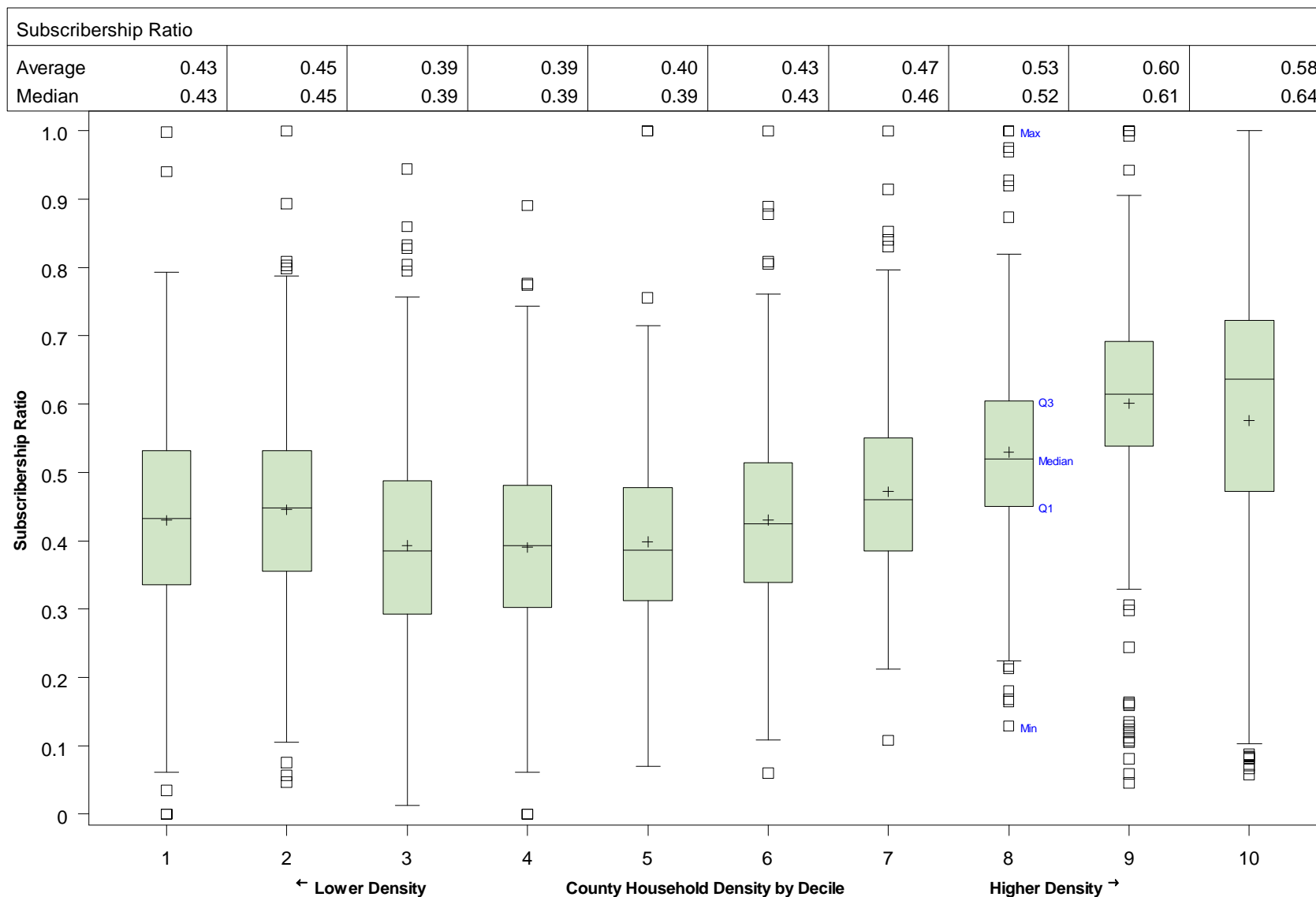
Chart 20
Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to Households
by Density Decile as of June 30, 2009
(County Data)



This chart shows cumulative and non-cumulative subscribership ratios by density deciles. Counties were grouped into density deciles based on households per square mile, calculated as the ratio of estimated county households in 2009 to county land area from the Census Bureau. For each decile, the height of any red, non-cumulative bar represents the ratio of the sum of residential fixed connections over 200 kbps in at least one direction across counties in the decile to the sum of households across counties in the decile. The height of the blue, cumulative bar for decile N represents the ratio of the sum of residential fixed connections over 200 kbps in at least one direction across all counties in decile N and all deciles less than N to the number of households in all the counties in decile N and deciles less than N.

Sources: FCC Form 477, Part VI; Geolytics 2009 Block-Level Estimates (Households in 2009); and Census 2000 (County land area).

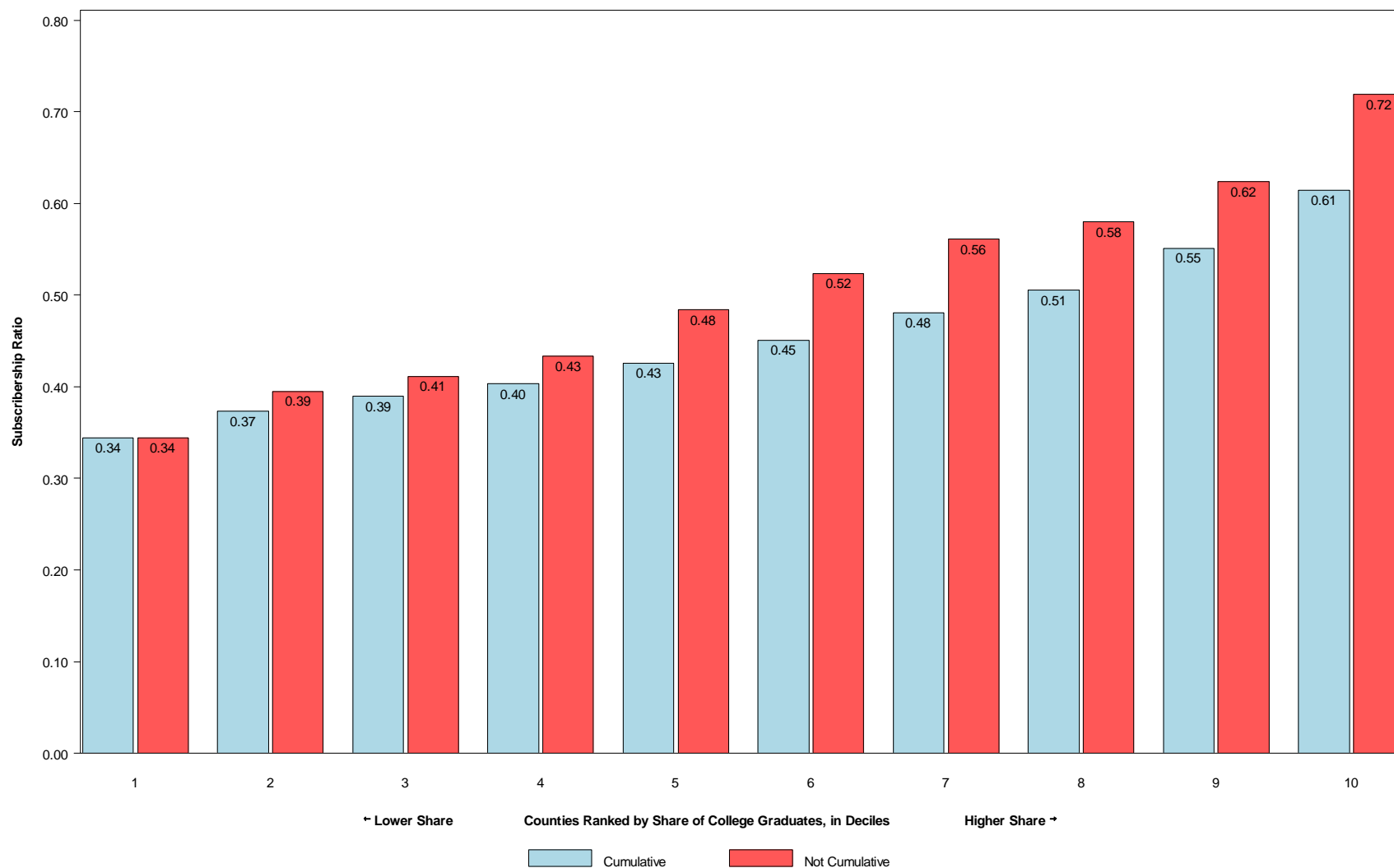
Chart 21
Subscriberhip Ratio Distributions by Density Deciles as of June 30, 2009



Note: Each box plot shows the distribution of residential subscribership to connections over 200 kbps in at least one direction for counties in the density decile. Some of the features are labeled, but note also that + denotes the position of the average residential subscribership ratio taken across all counties in the decile; L is the minimum observation above $Q1 - 1.5(Q3 - Q1)$; T is the maximum observation below $Q3 + 1.5(Q3 - Q1)$; and □ is any data point beyond $Q1 - 1.5(Q3 - Q1)$ or $Q3 + 1.5(Q3 - Q1)$. Ratios greater than 1 were set to 1.

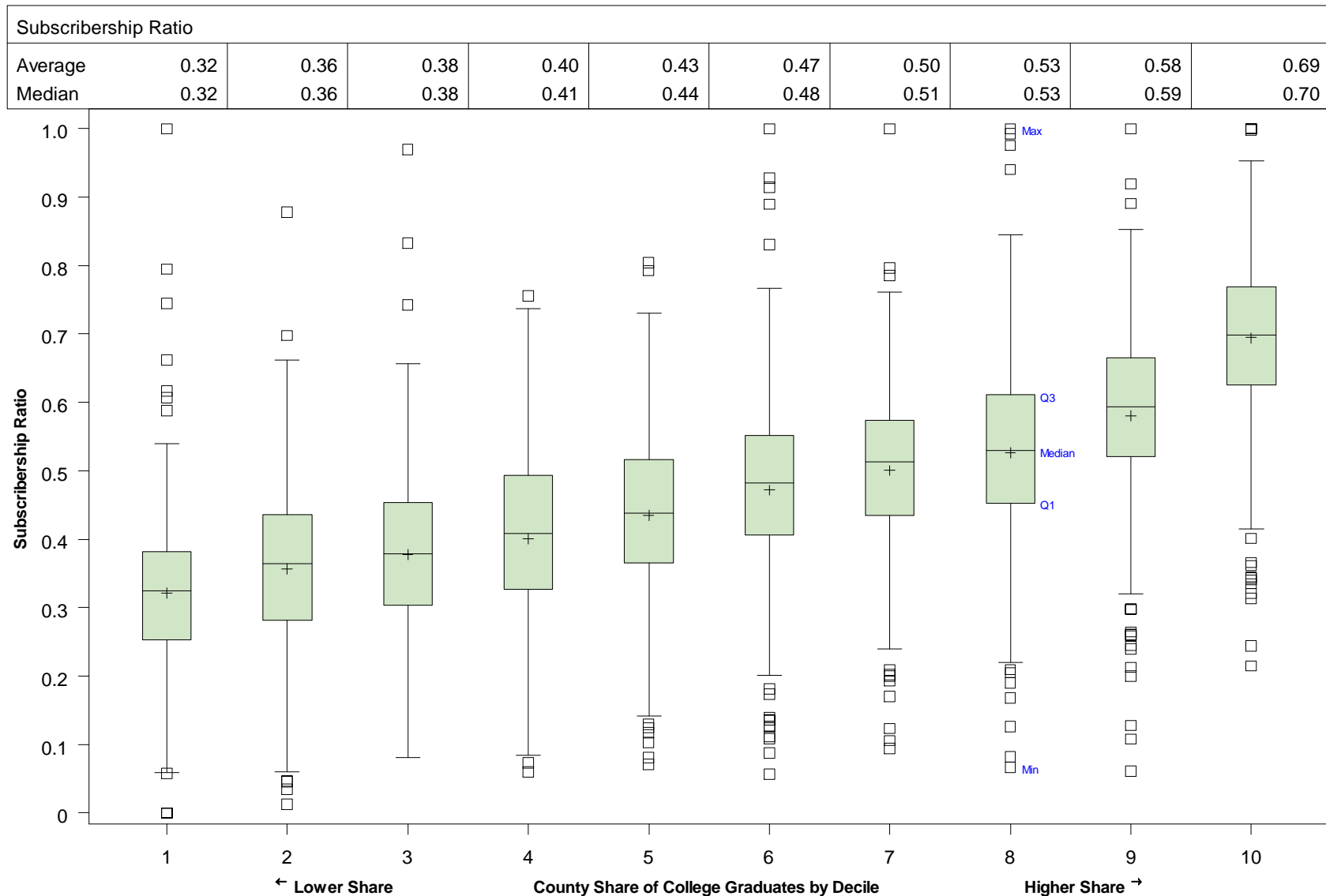
Sources: FCC Form 477, Part VI; Geolytics 2009 Block-Level Estimates (Households in 2009); and Census 2000 (County land area).

Chart 22
Ratio of Residential Fixed Connections over 200 kbps in at Least One Direction to Households
by Share of College Graduates in Deciles as of June 30, 2009
(County Data)



This chart shows cumulative and non-cumulative subscribership ratios by county share of college graduates in deciles. Counties were grouped into deciles based on the share of the county population at least 25 years of age with a college degree or higher educational attainment. For each decile, the height of any red, non-cumulative bar represents the ratio of the sum of residential fixed connections over 200 kbps in at least one direction across counties in the decile to the sum of households across counties in the decile. The height of the blue, cumulative bar for decile N represents the ratio of the sum of residential fixed connections over 200 kbps in at least one direction across all counties in decile N and all deciles less than N, to the number of households in all the counties in decile N and deciles less than N. Sources: FCC Form 477, Part VI; Geolytics 2009 Block-Level Estimates (Households in 2009); and Census 2000 (County educational attainment).

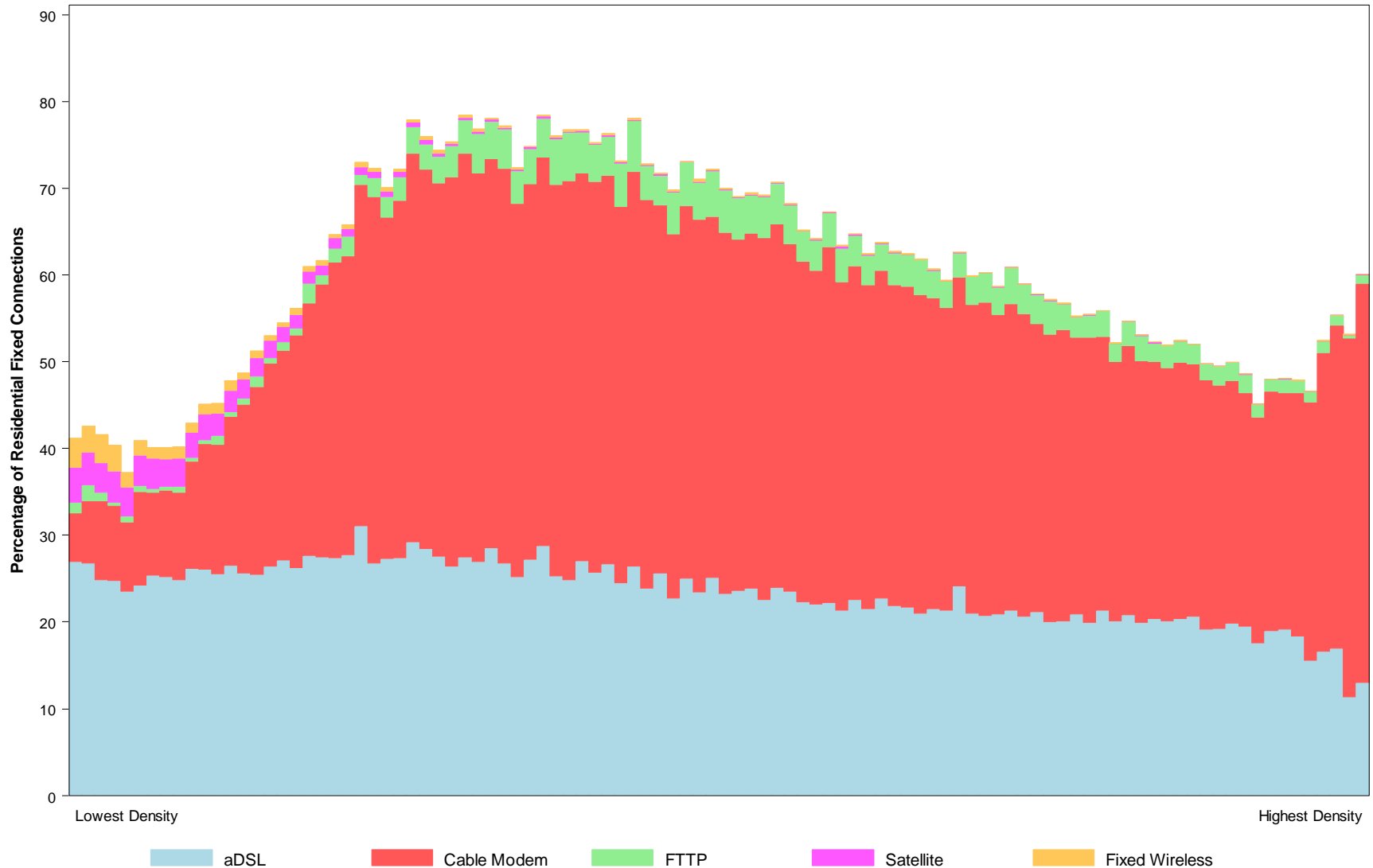
Chart 23
Subscribership Ratio Distributions by Share of Population with a College Degree (in Deciles) as of June 30, 2009



Note: Each box plot shows the distribution of residential subscribership to connections over 200 kbps in at least one direction for counties in the share decile. Some of the features are labeled, but note also that + denotes the position of the average residential subscribership ratio taken across all counties in the decile; L is the minimum observation above $Q1-1.5(Q3-Q1)$; T is the maximum observation below $Q3+1.5(Q3-Q1)$; and □ is a data point beyond $Q1-1.5(Q3-Q1)$ or $Q3+1.5(Q3-Q1)$. Ratios greater than 1 were set to 1.

Sources: FCC Form 477, Part VI; Geolytics 2009 Block-Level Estimates (Households in 2009); and Census 2000 (County educational attainment).

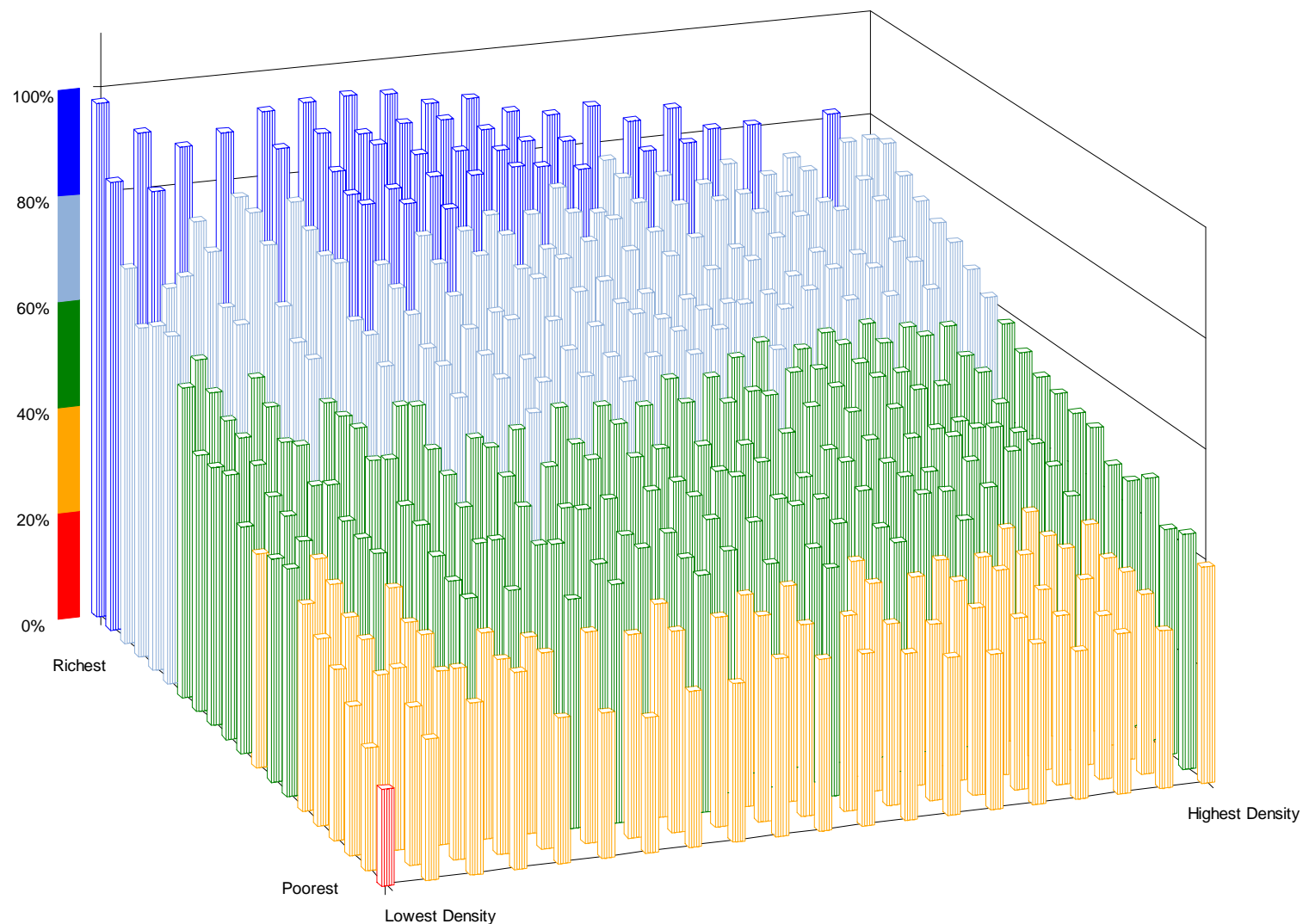
Chart 24
Subscriber Ratios by Technology and Tract Density as of June 30, 2009



This chart shows subscriber ratios by technology and household density. Tracts were grouped into 100 density percentiles based on households per square mile, calculated as the ratio of estimated tract households in 2009 to tract land area from the Census Bureau. For each percentile, the height of the bar represents the household-weighted average ratio of residential fixed connections over 200 kbps in at least one direction to households across tracts in the percentile.

Sources: FCC Form 477, Part VI; Geolytics 2009 Block-Level Estimates (Households in 2009); and Census 2000 (Tract land area).

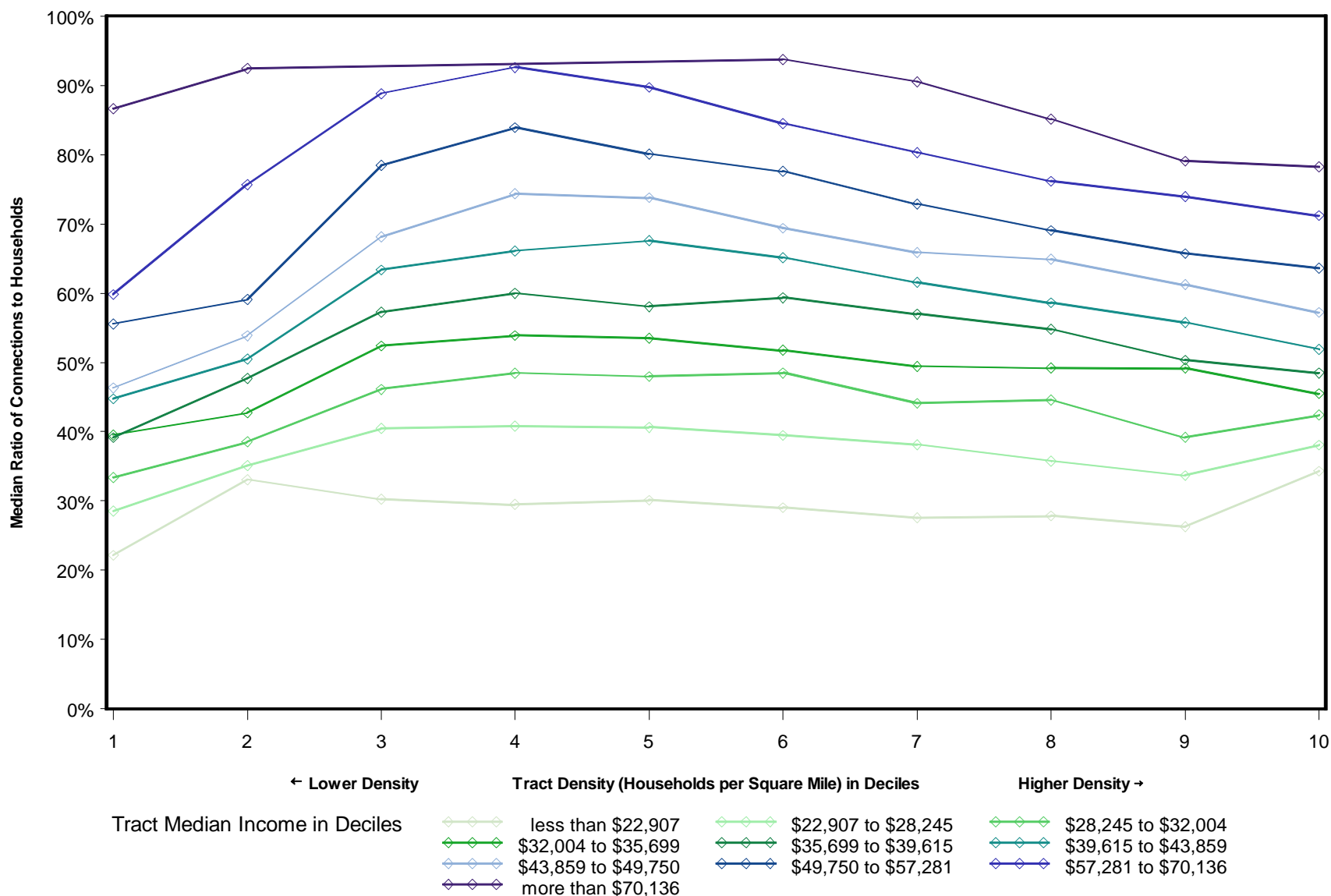
Chart 25
Average Subscriberhip Ratios by Income and Household Density
Tract Data as of June 30, 2009



This chart shows subscriberhip ratios by household density and income quantiles. Tracts were grouped into 400 density/income quantiles based on households per square mile, calculated as the ratio of estimated tract households in 2009 to tract land area from the Census Bureau, and median household income. For each quantile, the height of the bar represents the household-weighted average ratio of residential fixed connections over 200 kbps in at least one direction to households across tracts in the decile.

Sources: FCC Form 477, Part VI; Geolytics 2009 Block-Level Estimates (Households in 2009); and Census 2000 (Tract land area, Median household income).

Chart 26
Median Ratios of Residential Fixed Connections over 200 kbps in at Least One Direction to Households by Income and Density
Tract Data as of June 30, 2009



Sources: FCC Form 477, Part VI; Geolytics 2009 Block-Level Estimates (Households in 2009); and Census 2000 (Median household income in 1999).

Technical Notes

General

Detailed information about FCC Form 477 reporting requirements is available at <http://www.fcc.gov/form477/>.

Wherever a number of providers is cited in this report, multiple Form 477 filers within a holding company structure count as one provider.

Form 477 collects information about Internet access connections in service to end-user locations that are advertised to deliver information to and/or from the end user – that is, in at least one direction – at transfer rates (“speeds”) above 200 kilobits per second (kbps). Information is collected about connections in 72 speed tiers (nine upstream tiers and eight downstream) defined by ranges of upstream speeds and downstream speeds. See report Table 8 for specifications of the speed tiers. Connections are further categorized by the technology employed by the part of the connection that terminates at the end-user location (see below).

“End users” are residential, business, institutional, or government entities who use services for their own purposes and who do not resell such services to other entities. Facilities-based providers report information about connections they provide directly to their own end-user customers and also connections that they provide to Internet Service Providers for resale to end users. For Form 477 purposes, the facilities-based provider of a connection is the entity that owns the portion of the physical facility that terminates at the end-user location, obtains an unbundled network element (UNE), special access line, or other leased facility that terminates at the end-user location and provisions/equips it as a connection that transfers information at rates over 200 kbps in at least one direction, or provisions/equips a wireless channel that transfers information at rates over 200 kbps in at least one direction to the end-user location over licensed spectrum or over spectrum that the provider uses on an unlicensed basis.

The mutually exclusive Form 477 technology categories are: asymmetric Digital Subscriber Line (“aDSL” in this report), symmetric Digital Subscriber Line (“sDSL”), other wireline, cable modem, optical fiber to the end-user premises (“FTTP”), satellite, fixed wireless (using licensed or unlicensed spectrum), mobile wireless (using licensed or unlicensed spectrum), electric power line, and all other (which is included to capture deployment of additional technologies over time). In the Form 477 data collection, aDSL-based services delivered over fiber-to-the-node architecture are reported in the aDSL category. The other wireline category comprises T1/DS1, T3/DS3, and other copper-based connections, not elsewhere categorized, that deliver *Internet access* service at the end-user location. Ethernet connections delivering Internet access service are reported in the other wireline category if the connection terminates over copper and in the FTTP category if the connection terminates over fiber. Connections deployed over hybrid fiber-coax (HFC) architecture are reported in the cable modem category. Wireless ISPs (“WISPs”) report in the fixed wireless category if providing service to dispersed, fixed end-user locations and report in the mobile wireless category if providing a commercial service that can be received at any location within a service footprint. Wireless local area networks (such as Wi-Fi hotspots) that only enable local distribution and sharing of a premises connection are not included, although the shared premises connection is included.

Numbers of connections presented in this report are not adjusted for the number of persons at a single end-user location who have access to, or who use, the Internet access services delivered over the connection to that location.

Numbers of residential connections are estimated based on the total connections and percentage-residential connections information reported on Form 477.

Census tracts

Starting with data as of December 31, 2008, facilities-based providers of reportable fixed-location Internet access connections must report connection counts and percentage residential information at the census tract level of detail. Because of the inherent mobility of their service, facilities-based mobile wireless providers do not report subscriber counts by census tract. Instead, they report the census tracts in the state that best represent the areas where service is available over the provider's own network, for each of the speed tiers in which the provider offers service.

For the 2000 decennial census, the Census Bureau assigned a default census tract code of 000000 to some coastal and Great Lakes water and territorial sea. These default-code tracts are not included in the statistics presented in this report, which therefore summarize data for 66,287 census tracts.

According to GeoLytics, Inc. estimates for 2009, fewer than 200 census tracts have population but no households because the population resides in group living quarters. For the purpose of estimating residential subscribership rates by census tract, we assume these census tracts have no reportable *residential* Internet access service because persons residing in group quarters would have Internet access over a business connection provided to the operator of the group quarters. Therefore, these census tracts are included in the "zero" column (*see*, for example, Table 12).

Tables 1–4 (December 2008 vs. June 2008)

Changed reporting instructions starting in December 2008 caused a one-time decrease in the reported number of mobile wireless Internet access service connections, from about 60 million in June 2008 to about 25 million in December 2008. For reporting periods through June 30, 2008, Form 477 had instructed mobile wireless providers to report the number of subscribers whose mobile device (such as a wireless modem laptop card, smartphone, or handset) was capable of sending or receiving data at speeds above 200 kbps. The Commission found these instructions insufficiently precise to enable it to determine, from the reported data, the number of subscribers making regular use of Internet access service above 200 kbps as part of their mobile service package. Starting with the December 31, 2008 data, therefore, Form 477 requires mobile wireless providers to report the number of subscribers that have a capable device (as discussed above) for which the subscription includes a data plan for transferring, on a monthly basis, either a specified or an unlimited amount of data to and from Internet sites of the subscriber's choice, and *excluding* subscribers whose choice of content is restricted to only customized-for-mobile content (for example, text and multimedia messaging, or the capacity to download ringtones and games).

Starting with the December 31, 2008, data, providers also must report, explicitly and separately, total subscribers with a device capable of sending or receiving data at speeds above 200 kbps, irrespective of the service plan purchased. The number of such devices reported for December 2008 was about 86 million. That figure is not directly comparable to mobile wireless connections reported for June 2008 or earlier reporting periods, however, because individual providers – to a varying and largely unknown degree – included or excluded subscribers with service plans for less than full Internet access in the earlier data.

Finally, the Form 477 modifications adopted for the December 31, 2008, and later, data specify how mobile wireless providers should distinguish between residential subscribers and other subscribers, and some of these providers consequently reported a larger share of residential subscribers than they had reported for earlier dates.

Charts 16-17, Tables 11-12 and 21-22 (ratios above 100%)

Starting with data as of December 31, 2008, information about connections over fixed-location technologies must be reported for individual census tracts. This allows us to estimate the share of households with fixed-location connections in individual census tracts by taking the ratio of the reported number of fixed-location residential service connections to the estimated number of households. In the mid-year 2009 data, we continue to find "outlier" estimates at or above 100% and to find that the number of outliers is substantially reduced when estimates are made for individual counties rather than for individual census tracts.

Possible explanations of ratios at or above 100% include (1) geocoding misallocations of service locations to census tracts; (2) proper allocation of connections to the county level by some filers, but improper allocation of all connections to a single tract in the county; (3) possible overestimation of residential connections in service plans for which the customer base is primarily residential; and (4) connections at seasonally or occasionally occupied housing units, such as vacation homes, while the household is counted elsewhere. The numbers of households in census tracts that were used to generate the estimated ratios are themselves estimates (for 2009, from GeoLytics, Inc.), which could have an independent effect. (The same estimated numbers of households in census tracts were used to calculate ratios for June 30, 2009 and for December 31, 2008.)

Maps showing number of providers by census tract

Readers of previous reports in this series may note certain differences in the provider-count maps in this report as compared to maps for June 30, 2008 and earlier dates, which showed the number of providers by 5-digit geographical ZIP Code. The ZIP Code-based maps counted (at the holding company level) each provider with any fixed-location connections (wired, terrestrial fixed wireless, or satellite) reported for the ZIP Code and also any mobile wireless service provider who listed the ZIP Code as part of its service area. By contrast, in this report we provide separate maps for providers (counted at the holding company level) of fixed-location connections and for mobile wireless providers. Also, we present maps showing the number of providers that reported any *residential* fixed-location connections, thereby excluding any providers of exclusively business fixed-location connections in the census tract.

The June 30, 2009 map of providers of mobile connections with information transfer rates over 200 kbps in at least one direction depicts somewhat less extensive coverage than the year-end 2008 map published in the *December 2008 High-Speed Report*. In the interim, discussions with providers clarified that the provider should not report service availability (for example, through roaming arrangements) in census tracts in which the provider does not operate a network capable of sending or receiving data at speeds above 200 kbps.

Maps showing residential subscribership rates by census tract

The two maps based on estimated Internet access connections over 200 kbps in at least one direction per 1,000 households (that is, estimated household subscribership, or *adoption*, rates) are not comparable to the ZIP Code-based maps for June 30, 2008 and earlier dates, which appeared previously in this series of reports, because *numbers* of connections were never reported for individual ZIP Codes. Readers should note that these two maps (1) exclude all connections identified as business connections and (2) necessarily exclude residential mobile wireless connections (which are reported for the state but not for individual census tracts).

Customer Response

Publication: *Internet Access Services: Status as of June 30, 2009*

You can help us provide the best possible information to the public by completing this form and returning it to the Industry Analysis and Technology Division of the FCC's Wireline Competition Bureau.

1. Please check the category that best describes you:

☐ press
☐ current telecommunications carrier
☐ potential telecommunications carrier
☐ business customer evaluating vendors/service options
☐ consultant, law firm, lobbyist
☐ other business customer
☐ academic/student
☐ residential customer
☐ FCC employee
☐ other federal government employee
☐ state or local government employee
☐ Other (please specify)

2. Please rate the report: Excellent Good Satisfactory Poor No opinion

Data accuracy	()	()	()	()	()
Data presentation	()	()	()	()	()
Timeliness of data	()	()	()	()	()
Completeness of data	()	()	()	()	()
Text clarity	()	()	()	()	()
Completeness of text	()	()	()	()	()

3. Overall, how do you rate this report? Excellent Good Satisfactory Poor No opinion
- () () () () ()

4. How can this report be improved?

5. May we contact you to discuss possible improvements?

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